## C.G. MANNERHEIM

 AGROSS ASIA FROM WEST TO EASTIN 1906-I908

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## PREFACE.

THE journey across Asia described in this volume was made over thirty years ago. In the spring of 1906 I received orders from the Russian General Staff to undertake a journe: from Russian Turkestan through Chincse Turkestan and Western China and the provinces of Kan Su, Shehsi and Shansi to Peiping as the final goal. The object of this expedition was to study conditions in the interior of Northern China, collect statistical materials and perform various tasks of a military nature. As, however, it seemed evident that in the course of my long journey and in connection with my principal duties I should also have an opportunity of collecting materials of scientific interest, I got into touch before starting with Senator Otro Donner and through him with the Fenno-Ugrian Society and the Trustees of the collections in the National Museum in Helsinki, who displayed great interest in my journey and requested me to collect archacological and ethnographic materials and secure manuscripts or fragments of them. The wish was also expressed that I should study little-known peoples and tribes resident in Northern China. I endeavoured to carr out these instructions to the best of my ability in the course of the journes, so that m ! original plans were considerably extended.

The remarkable awakening of the "Central realm" from its centuries of slumber, the political re-birth of China characterised by the policy of intensive reforms of the central government, was of very special interest at the time of my journey.

The humiliation China had experienced round about the turn of the century, the apprehension of danger from without, the ferment in the southern parts of China, the spread of education in conjunction with the growth of progressive ideas through the newspapers of the south and students returning from Japan, appeared at that time to be impelling the country along the path of reform and paving the way, though slowly, for the victory of European ideas and culture over China's antiquated past, while the decentralisation of administration, the material interests of the all-powerful Mandarins and the hard struggle for existence among the uneducated masses constituted a constant threat to the ripest and best devised reforms of the central government, sometimes, perhaps, a healthy brake on too impetuous action.

It was, of course, also of interest to ascertain, to what extent the oullying provinces of the empire had actually been affected by the reforms of the central government and
what power of resistance or the contrary the mass of the people would represent during the process of transformation. My journey gave me the impression, however, that the work of reform had likewise taken root in the interior of China. Although a shortage of enlightened personnel often interfered with its systematic course, noteworthy results had already been achieved in some spheres, particularly the Army, railway construction and schools. In two or three years, e.g., no less than $40-50,000$ schools, established on European models, had been opened. Difficulty was encountered, however, owing to the shortage of educated "reformers" and financial problems. A reform of the currency had just been decided on and a centralisation of the financial administration had been promised. All this led onc to expect that the empire would have a new and great future and that it was growing into a power, with which other nations would some day have to reckon.

For want of time I have had to postpone from year to year the fulfilment of my original intention of preparing the notes made on the journey for publication. In the autumn of 1936, however, the Finno-Ugrian Society undertook to publish the diary I had kept during the journey and revise and publish the scientific materials I had brought back. Professor Kaarlo Hildén was appointed editor. The preparation of the archacological materials was undertaken by Professor A. M. Tallgren, of the manuscripts brought back by Dr Gustaf Raquette, of Lund, of the anthropological materials by Professor Kanrio Hildén, of the ethnographic by Dr. Kustaa Vilkuna, of the meteorological by Dr Runar MeiNANDER; some of the fragments of manuscripts have been interpreted by the late Professor Julio N. Reuter and by Professor G. J. Ramstedt. The itinerary maps drawn by me during the journey have been prepared and re-drawn by Mr A. K. Merisuo.

The translation of my diary, which I kept in Swedish, is the work of Mr Edward Birse, of Helsinki, and the names of places have been checked by Miss Elsbeth Grant, of London. Mr Birse has also translated the essays dealing with the scientific materials.

The book is to be published in two parts. The first part contains the records of my journey, the second the scientific contributions and itineraries. The publication has been delayed by the strained political situation during last autumn and by Russia's attack on Finland at the end of November, 1939.

I take this opportunity of expressing my thanks to all, and particularly to Professor Kafrlo Hildén, who has devoted a great deal of time and trouble to editing the slender materials I was able to bring hack.

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GENERAL HEADOUARTERS
OF THE FINNISH ARMY,
FEBRUARY,I940.
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G. MANNERHEIM.


General map of the author's journey across Asia.

Ihave been given my papers and can start to-night. Splendid, after having had to spend 1901 several hours a day, for two weeks, in calling on ministries and other Government offices. .July I leave by the night express.

Arrived in Moscow. Left for Nizhni-Novgorod ${ }^{1}$ in the evening.
Just had time to sce the old Kremlin before boarding the river steamer „Grand $\mathcal{J u l}$, Duchess Olga Alexandrovnan. The passengers are very second-rate. One of them, Niz a tall, young Roman-Catholic priest, is on his way from Saxony to Saratov; he has been Nov. given a living in one of the flourishing German settlements in that neighbourhood. The political situation is the general topic of conversation. The priest declares that the only hope for Russia is the formation of a party similar to the Catholic Centre in Germany. Splendid weather. The landscape is fairly hilly. Much traffic in the port of Nizhni-Novgorod, ${ }^{1}$ steam launches, ships, timber rafts, etc., and yet trade is by no means brisk this summer. The journey is thoroughly enjoyable. Brief halts. Rapid progress. One lovely scene succeeds another, the landscape presenting a series of characteristic and beautiful pictures as it changes slowly from hilly woodland to a flat, yellow, sandy steppe. The towns we pass afford little of interest to a traveller already acquainted with Russian provincial towns. They cover too large an area in proportion to the population; the houses are small and in poor repair, surrounded by ill-kept gardens, and connected by dusty streets, badly paved or not paved at all and flanked by walks consisting of two parallel boards resting on logs. The larger towns boast squalid horse-trams, drawn by patheticlooking beasts. In five days, with short stops at Kazan, Simbirsk, Samara, Sizran, Saratov and Tzaritzin, we reach Astrakhan, situated on one of the mouths of the Volga - a mouth so wide that it could be mistaken for a gulf. An immense number of boats, ships, barges, floating offices, timber rafts, "belyanas», oil tankers, etc., help to make the river livelier than usual. I was just in time to have my luggage removed to the "General Kaufmann", a river steamer that took us out to the steamers in the outer roads which navigate the Caspian. Mrs. G., an old friend from St. Petersburg, ${ }^{2}$ and her husband came with me. It was windy and rainy. We reached the roads towards evening and left immediately on

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A railuay varion mat A.hhhabad.
board the nAdmiral Komiloff, an old padde-wheeler. The roads lie far out in the Caspian - sky and an endless expanse of water. About too ships and floating offices were anchored here. In the darkness their lights and their reflection in the water made a fine show.

Fuly fath. A rough passage to Petrovsk, a little, white bathing resort shut in between the mountains of the Caucasus and the Caspian. Poor and empty, A lovely beach with its rough sand and large waves. A refreshing bathe in the sea, the waves tumbling me over and massaging me pleasantly.

July 1.gth. Towards evening on the following day we reached Baku, the oil town, with its open roadstead. The town forms an amphitheatre on the eastern slope of the hills. Lights peep out from far and near, surtounded by the mysterious shapes of the hills, and illuminate endess rows of oil derricks that appear out of the dark earth like an army of ghostly crealures. Two hours after my arrival I sailed on the „General Kuropatkin» under the command of a red-bearded countryman of mine, Baron Rehbinder, from Korsnäs. The steamer was comfortable and quick. The crossing to Krasnovodsk took $15 \mathrm{I} / 2$ hours. Good cuisine, a large and comfortable dining saloon, with Kuropatkin in full-dress uniform gazing down calmly and phlegmatically on a motley crowd typical of the Russian border.

July 16th. On Monday morning we reached Krasnovodsk, a small, prettily situated town on the barren, rocky shore of the Caspian. The harbour was deserted, the houses small, onestoreyed with flat roofs. No trees, no bushes - tropical heat and enormous masses of dust. The town is surrounded by high, barren hills. Alter about 7 months in Europe I was on Asiatic soil once more. A refreshing bathe in the clear green waters of the Caspian gave me strength to bear the heat that at first seemed overpowering. All the porters are Persians, known as mambals". As strong as animals, they lift and balance astonishing weights on a rope cushion fastened on to their backs. A train was standing at the station, some of the dusty carriages painted white. A filthy kitchen, an improvised, shaky dining-car on 4

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wheels, carriages broiling in the sun, dirty and tattered seats, ill-fitting doors, everything gave one an impression of disorder and lack of organisation.

The line runs along the seashore for hours through a barren sandy plain. Here and there you catch a glimpse of Turkomans riding their tall, beautiful horses, reminiscent of English thoroughbreds, or swaying on their camels, whose rolling gait is distressingly uncomfortable. One or two earth-caves or nyurts" (tents) appear on the endless plain, but you look in vain for any trace of agricultural or other activity. Some insignificant flocks of sheep, a few camels with saddles on their backs, grazing on ground where there is scarcely a blade of grass to be seen, are the only signs of life visible.

On Tuesday we reached Ashkhabad, a little town in a green oasis. The horses are July strikingly beautiful and elegant. The Turkomans are tall and thin and wear high sheepskin caps and long „khalats» (gowns) of subdued colours. From Ashkhabad the railway runs in a south-easterly direction along a valley with chains of hills in sight to the north and south.

On the following day we passed through Sukara, a fertile district with villages and towns surrounded by shady gardens and groves. The people wear turbans, one end of which hangs over the left ear. Their wkhalats\% and other garments are in bright and beautiful colours. The men are tall and stout and wear long, well-trimmed beards. Evident prosperity, larger flocks of sheep. The horses are in good condition, big, but of an inferior breed. In Samarkand, where we arrived at dusk, the Turkoman Khan, deposed by the Russians, boarded the train with his brother, who was dressed partly in Russian Cossack uniform. A band of inquisitive idle Bukharians followed him to the carriage and grouped themselves round the windows.

On Thursday morning the train arrived at Tashkent. In a comfortable carriage, drawn $\mathcal{J u l y}$ by a pair of horses, I drove along shaded avenues with a few, one-storeyed houses on either Tash


Old cemetery of Tashkent with sacred trees.
side, to the Grand Hotel. Straight and wide unpaved strects shaded by poplars and acacias divide the town into large, regular blocks. In the evening, when the Russian part of the town is lit up by electricity, it gives the impression of a large, shady park. The streets are unusually wide. The houses, including the residence of the Governor-General and of the exiled Grand Duke Nikolai Constantinovitch, are one-storeyed in order to reduce the danger of the frequent earthquakes. The rooms are airy, light and cool. In the afternoon I called on General Markoff, Acting Chief of Staff of the Turkestan Military District, whom I had known when he was General Tserpitsky's Chief of Staff during the operations at Sandepu.

July 2oth Tashkent.

On the following morning I called at the Headquarters Staff in order to study some dossiers. At noon I was received by the Governor-General Subotitch, a young and alert general, with a pleasant and intelligent face. In the afternoon, accompanied by Mr Mengis, the manager of the Tashkent Tramway Company, I visited the picturesque old Sart town with its narrow, winding lanes enclosed by clay walls, about the height of a man, with small detached houses here and there, the lower floor being given up to shops. The windows, at any rate those facing the strect, consist of small, vertical, narrow apertures. Now and then, however, two-storeyed houses with large windows and a bizarre combination of Sart decoration and modern European architecture give evidence of Russian influence. The building materials consist exclusively of clay mixed with straw. When air-dried bricks are not used, earth is rolled into oblong lumps half the size of a man's head and dried in the sun. Masonry and walls are of such primitive bricks, joined together on a slight slant, and filling the interstices between the woodwork. Irregularities and holes are covered over with a coating of clay. The whole structure is flimsy and thin. A strong push of the shoulder would bring down the wall. Behind these walls and shops the private life of the people is carefully screened from the prying gaze of a stranger. In the street married women are closely veiled, with a black net-like veil shrouding their faces and breasts. Rich or poor, clad in silk or cotton, they always wear a long outer garment of plain colour with sleeves trailing to the ground at the back, hiding their figures from head to foot. You see them

flitting along a dusty road or street like ghosts, never stopping or being spoken to in the lively throng of loud-toiced men. In the heat that often exceeds $50^{\circ} \mathrm{C}$, when no breath of wind refreshes the parched vegetation, this heavy, closed garb must be a torture. The men spend the whole day outside at their work or talking with each other, stretched out on wooden platforms, often covered with beautiful carpets, in front of the cafes or sitting on benches or steps outside their houses and mosques. The bazaars in the old town consist of covered-in streets with small shops alongside each other, where you find dealers in all the simpler kinds of goods. At certain times of the day and especially on Wednesdays the bazaar is thronged by thousands of people who come to do their shopping or satisfy their curiosity. Men on horseback or on frail little donkeys, enormous marbahs" on two wheels, 7 feet in diameter, the driver, with his feet resting on the shafts, being seated on some blankets or rugs thrown over a short-seated saddle to make it softer, crowd the narrow, winding street. 'This variesgated and noisy bazaar, where you seldom, if ever, hear a quarrel, is exceptionally interesting. In the simple shops the entire stock seldom represents a value of more than a few hundred roubles, but they are all well kept and neat. In a smithy you find a fire with 2 bellows, a heap of charcoal next to it, a pile of newly forged horseshoes and the smith's tidy bed below some engravings with a few dozen old horseshoes arranged symmetrically and tidily in rows under the bed. The whole space scarcely occupies 4 square metres. In almost all cases all the dealers in the same kind of goods are grouped together and in the immediate neighbourhood you find those who deal in a similar article made of the same raw materials. The Starts who live in the towns are strikingly neat in their dress. The turbans of those who can write are dazzlingly white, those of others many-coloured. When a Cart starts on a journey, he takes several turbans with him in order to have one that will do as a winding-sheet in case of his death. The light and frequently light-coloured khalats he wears in the heat of the summer are usually clean, no easy matter to achieve in such a dusty town. He appears to


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be unenterprising and lazy, but goodnatured and obliging. Work in the streets only begins after $7 \mathrm{a} . \mathrm{m}$. The natives sit and talk or smoke in large groups. A Cart from whom you have refused to buy something on account of its high price, will often accompany you to a neighbouring shop and do his best to help you get the goods cheaper.

The irrigation work carried out many centuries ago is wonderful and is probably univalled. Thanks to it, drought and sun are overcome and with the most primitive treatment the fields yield 5 or 6 crops of lucerne during the summer. The water is conducted from the river Chirchiq, about 3 miles from the town, along a network of canals, some of which are as large as rivers and not only supply the necessary moisture, but also power for primitive industries. In the old town, especially, the ground is hilly, and the canals or mariqs", as they are called, intersect each other in all directions. You often see several large ariqs rushing in a parallel direction at different levels of the same slight slope and working mills etc. at intervals of a few yards from each other. At one point you see an ariq flowing from under a house at the very surface of the ground, at another it passes over your head in a primitively constructed aqueduct connecting the roofs of two houses built on a slope. The main ariqs are often quite deep, as much as $6 \mathrm{I} / 2$ feet, but the majority are of no great depth. The water contains a lot of clay and is quite turbid. If you let it stand in a glass, the mud settles very quickly and the water becomes drinkable and has no by-flavour. Innumerable small ponds enable the population to find relief from the scorching sun in bathing. Being good Mohammedans, they avail themselves of this benefit to the full. The children, in particular, tumble about in the water from morning till night, always in a pair of cotton drawers which the boys often inflate before jumping into the water, producing a very amusing effect. The only drinking water used is the arid water.

After many enquiries and discussions I succeeded in obtaining 3 cwt of powder for shooting and fishing, 7 rifles of an old Russian Army type and 2,000 cartridges. The news of the unexpected dissolution of the Duma forced me to hasten my departure and complete my purchases with feverish speed.

July 26th. On Wednesday evening, July 26th, I started for Chernyaevo, the last Customs station, Samarkand. where certain formalities had to be gone through. Thence I proceeded to Samarkand to take charge of the two Ural Cossacks who were to be placed at my disposal by order of the Czar.

July 27th. The town of Samarkand lies about a mile and a half from the railway station of the Samarkand. same name. The cabs, as everywhere in Turkestan, are drawn by two horses (one galloping on the curb). Some of the drivers are Russians, but a great many are natives wearing an embroidered skull-cap under the Russian cabman's hat. After calling on the staff of the Cossack Division and the temporary Commander of the Division, General Naumoff, I drove to the barracks of the and Ural Cossack regiment, about 3 miles outside the town. The Commander, Colonel Koudriavtseff, displayed great interest in my expedition and was flattered that only Cossacks of his regiment were to accompany me. It appeared that he had read Przevalsky's four fat volumes and had a very good idea of conditions in Central

Asia. He had chosen the Cossacks himself, the pick, he said, of 40 who had volunteered. I was shown the men and horses. The men looked smart, the horses were small, strong, plump and too well fed. After explaining the privations and hardships that awaited us, I asked, if the men had carefully considered that the journey would take fully two years. "II it took three or four instead of two, we should be willing to gown, they answered. Both had quite made up their minds.

In the evening I visited the native town, remarkable for its wonderful historical monaments. The town is ancient (Alexander the Great selected it for his residence in Central Asia) and was razed to the ground by Jenghiz Khan, but was rebuilt with renewed splendour about 150 years later (1370) by Tamerlane who, like his immediate successors, held his brilliant court there. The most beautiful and wonderful ruined mosques are of the $14^{\text {th }}$ and early $1^{\text {th }}$ century. The Rigistan square, enclosed on three sides by brightcoloured old mosques, is marvellously impressive, especially at noon on a Friday, when thousands of Mohammedans come to worship. They hurry to the mosque from all sides, some stopping to rinse their feet in an aria, spread their cloths and carpets in long rows on the pavement outside the already filled mosque and proceed to make their obeisances and prayers. The monotonous voice of the mullah breaks the silence now and then and a sea of white turbans rises and falls with surprising uniformity. Mohammedans of higher rank come to the mosque riding beautiful and richly caparisoned Bukhara horses. The mosques are visited under the guidance of willing natives and you cannot help marvelling at the lack of outward reverence they show for these centuries-old religious monuments of theirs. The mosques are built in a rectangle round a courtyard planted with trees and containing a well or pond. Half-ruined stairs with gigantic steps lead up to several floors of cells lighted by the doors facing the courtyard. The cells are inhabited by mullahs (mullah = teacher) and pupils who spend part of the year as teachers in the provinces. They are very pleased to see visitors and never refuse baksheesh. One of them, with an ingratiating smile, showed me a photograph of himself arm-in-arm with a couple of smiling women. Outside the town there is an uncommonly beautiful mosque built by Tamerlane (or Tymurlyng, as the Carts reverently pronounce his name) with additions of a slightly later period. In a cleft in the rock you are shown the lions' den into which Daniel was thrown and his tomb on the edge of it. Tradition has it that after his death he continued to grow in his tomb which had for centuries been extended from time to time. His respectable height of 26 feet would certainly have continued to increase, had not the Russian Government with its love of order found it necessary to forbid Daniel to grow any taller. The Russian Government and its representatives are criticised sometimes with good reason, but more frequently with a childishness of which only the oriental mind is capable. The old mosques in Samarkand appear to be going to rack and ruin at a rapid pace. To judge by the condition of these ruin-like buildings, they must have begun to decay long before Samarkand was conquered by the Russans. The old building materials, consisting of unbaked bricks, give the mosques an indefinite yellowish-grey tinge that is characteristic of the deserts and sandhills of Turkestan. These earthcoloured mosques are sometimes covered with glazed tiles, blue, green, red and gold, but more often turquoise or dark blue, on a white ground. These tiles are wonderfully


Shah Dar mosigut
in Samarkand.
beautiful, and where they have been preserved in large mosaic-like surfaces, they give a touch of inconceivable splendour to the enormous mosques that venture to raise their minarets and mighty cupolas so unexpectedly above the indescribable monotony of this town of grey unbaked bricks or lumps of earth. Unfortunately, however, more than half of these tiles - that testify to astonishing technical ability - have already fallen and some of the buildings are semi-ruined. Large cracks in the mosques that still remain standing and collapsed pinnacles of minarets indicate that the work of destruction begun long ago will continue without mercy at a rapid rate until these memorials of a great era with its magic glamour have vanished. For a consideration many a mullah would, no doubt, be prepared, under cover of darkness, to pull down a slab of mosaic of lovely colour with his own hands and hand it over to an irreverent tourist.

The houses in Samarkand are numbered, but with no idea of sequence, so that in the same crooked little alley you find No. 971, for in stance, over the gateway next to No. $5^{8}$ and often, upside down.

An elderly white-bearded teacher in a little school I visited, housed in a building provided with holes for windows, sat listening to and correcting one of the boys reading, while the other ten read aloud in unison from a book lying on the ground. The hubbub was indescribable. A slight partition of mud, about 18 inches high and of the same breadth, ran parallel to the walls at a distance of about 7 feet. The boys sat cross-legged, leaning against this partition, using it as a book-rest. Inside the partition the floor was empty. The pupils could have a dip in a small pond in the yard in the heat of the summer. The children of the Sarts make a good impression; they are clean, merry and good-humoured. You see large numbers of them in the streets, where they knock about and play or help their parents by leading or driving an animal, carrying a pot, selling something and so on.


You scarcely ever see them cry, nor do they ever fight among themselves. There is every indication that the Sarts are fond of children. The children's dress consists of a white or light-coloured blouse-like shirt fastened round the waist by a coloured cord or sash and drawers to match, covered by a cotton khalat in several light colours, or in the case of girls by a small jacket and a skirt of various colours from which the drawers protrude. On their heads they wear a skullcap of different colours, of the same kind as the adults. They do not wear turbans or shoes. The boys' heads are shaven, the girls wear their hair in many small plaits, a carved ring in one nostril and one or more silver rings, decorated with coloured stones, on their fingers. The skull-caps worn here are hemmed at the bottom with a black band, an inch and a half wide, and are embroidered at the top in varied colours, mostly on a dark ground, but often on a light or even white one. The turban, one end of which hangs loose behind their ear, is fastened to the skull-cap in an instant.

Escorted to the station by the officers of their regiment and a band, the Cossacks left for Andijan on the 28th. - Before leaving Samarkand I witnessed a festival with a "badja" dance (performed by trained boy dancers) in a public garden in the native town. Several arbahs were drawn up inside the wall, the horses being unharnessed and tethered to the vehicles. The spectators sat in an oblong ring, close to a muddy pond, on blankets and carpets. One of the narrow sides of the ring was occupied by 4 repulsive elderly musiclans, 3 tambourines and a whining instrument rather like a clarinet. Three boys of 11 to 14, with long hair, masses of silver ornaments and dressed just like girls, took turns in dancing in the centre. At times two of them appeared simultaneously, but mostly only one at a time. The dance consisted of a few simple steps, much movement of the arms and a constant fluttering about with outstretched arms accompanied by quick, long and
fairly graceful leaps from one end of the improvised dancing floor to the other, reminiscent of the leaps of European ballet dancers. From time to time the dance was interrupted by a spectator, with an expression of admiration and desire in his eyes, who treated the »badjan to a cup of tea; this he proferred with one hand in a humbly bowing posture, embracing the badja's waist with the other arm, while the latter sipped the drink holding the cup in one hand, and stroking the attentive cavalier's neck and shoulder with the other. These exhibitions of courtesy always evoked cries of delight from the crowd. The monotonous sounds of the musicians were interrupted now and then by snatches of song, sung in a hoarse voice and also in a very monotonous tone. At times the badja varied his performance by singing a song. The most enthusiastic admirers ranged themselves behind the musicians, frequently signifying their pleasure by loud yells and waving their arms aloft. There was general delight and the badjas seemed used to being admired. -- Some tables were set out not far from the dance with tea-urns, bowls and bread, but the wild yells of the enthusiasts seemed to indicate that less innocent refreshment had been consumed earlier. - In the evening I left by train for Chernyaevo and Andijan, whence we were to start our journey on horseback.

July 2gth. Andijan, the eastern terminus of the railway, is a small town of which I was unable to see more than one street, as I was busy collecting my luggage, hiring arbahs to cart it, securing means of conveyance etc. A filthy stage-coach conveys travellers from Andijan to Osh, a town 27 miles distant. The road, if it can be called so, seeing that nothing but bridges are ever repaired, is quite practicable, but insufferably dusty. The post-horses are bad, and the postilions almost worse. The monotony of the journey is relieved by the beautiful shapes and colours of the mountains far to the south-east which enliven the landscape. The horses are changed half-way at a post-house, where a steaming samovar proves that the owner is a Russian.

In Andijan I made the acquaintance of a wealthy Sart merchant, Said Chani. He put up at the same hotel as I and according to the hospitable custom of the Sarts he invited me to share a large dish of pälaw (pola), a concoction of rice and mutton chopped into small pieces. The same dish is eaten in Russia under the name of "pilaff» or "ploff», but it is cooked there with butter, while here mutton fat is used instead. In his manners my host was very like an Armenian, just as talkative, good-natured and outwardly sincere. He was exceedingly obliging and he really did me many a good turn. He telegraphed to the manager of his slaughterhouse in Osh and instructed him to meet me on the road and look after me. And sure enough, some 7 miles from Osh I found a swarthy, short Sart leading his horse by the bridle. He introduced himself as Said Chani's representative, invited me to stay in his house and accompanied me on his excellent little piebald steed. Darkness was setting in and objects could only be made out indistinctly. The silhouette of his fiery horse, his white turban, and light khalat with its pattern of big flowers, as he sat upright and immovable in his saddle seemed, in the dusk, strangely exciting. We made our way along narrow, dark and dusty lanes and stopped outside a narrow doorway in the mud wall that we had skirted almost uninterruptedly from the edge of the town. Ser-
vants carrying lights led me into a small rectangular courtyard, one end of which was formed by a one-storeyed mud house with a flat roof and a kind of mud terrace. The opposite end was bounded by an open mud shed in which two horses were stabled. Wooden beds with pillows and coloured padded blankets stood along the mud walls. Between two trees with glowing red blossoms, planted in large pots, a table stood on the terrace, laden with various sweetmeats and bread; coloured carpets decorated the wall of the house between the windows. Cane-bottomed chairs were placed round the table and I was asked to sit down. Being hungry after the journey, I did not need much pressing to do justice to the greyish, fine-grained, highly spiced bread and the other dishes that consisted of hard caramels, some kind of candy sugar in thin slices, dried fruit, almonds and pistachio nuts, tea and melon. I was greatly and none too pleasantly surprised, however, when after this traditional sweet "dastarkhan" two very greasy dishes of mutton were served, one of chopped mutton with potatoes and onions, the other an enormous dish of pälaw. I was supplied with knives and forks, but my hospitable, dark-complexioned host ate everything with his fingers. The colder the dishes of mutton grew, the more unappetising I found them, but there was no help for it, my host urged and persuaded me, and it would have been a grave insult to leave anything on the dishes. After a great deal of sighing and eating the dishes were emptied and I hastened to bid my host goodnight in fear and trembling lest there should be any more mutton fat.

In the morning I called on Colonel Alexeyeff, the District Commander. He had only recently been appointed and seemed to be very imperfectly informed, a typical, petty official, afraid above all things of accepting responsibility for anything. He lives in a charming country house on a hill across the river. The park covers $7 \mathrm{I} / 2$ acres of land sloping towards the river with an indescribably lovely view of a verdant and fertile landscape, typical of Ferghana, bounded in the distance by a high chain of snow-capped mountains. The house was occupied at one time by General Skobeleff, the conqueror of Ferghana. The park is intersected by small, roaring ariqs leading from the river that flows far below, a reproduction in miniature of the irrigation system of Turkestan. The Russian town, planned on a generous scale with beautiful, shaded avenues, lies on a hill opposite the house of the District Commander about $2 / 3$ of a mile from the native town of Osh. Anyone travelling in Central Asia would be well advised to obtain as little of his equipment as possible in Turkestan. There is little to buy and prices are high.

The native town reminds me of the nold» towns of Tashkent and Samarkand, the same little crooked lanes, roaring ariqs, small mud houses, motley bazaars full of life and movement. Osh, however, is much more beautifully situated at the foot of a mountain, where, as the Sarts and Kirghiz assert, King Solomon administered the law in olden times, a law that has since been replaced by Russian justice. At the top of the mountain there is a small Mohammedan temple visited by thousands of faithful pilgrims.

In the course of the day I moved from my hospitable host's rather cramped courtyard to a big garden at the back of a caravanserai, a kind of inn, where I had plenty of room for my tent, blankets, saddles, packing cases, horses etc. In this shaded garden surrounded


Horse market at Uzkent with ruins of an old fortress in the background.
by mud walls I set up my bed and small tent and got busy with my equipment. The first thing was to sort and pack all the equipment in cases that could be loaded in pairs on the pack-horses. The organising of this packing requires both care and time. Lists of everything have to be made, weights have to be checked and adjusted and so on. The great problem as to whether I should buy or hire horses for the journey, was settled by my deciding tc go to a horse market in Uzkent, 30 miles NE of Osh, with my host of yesterday. The journey was interesting, for it enabled me to see another side of Ferghana and a little more of the life of the people. The road is hilly, one rise after another, and no sooner do you come to the top and think that this must be the last of the hills than you see another and steeper one. Except in the immediate vicinity of Osh, tilled fields are rare Here and there you see a strip of field high up on a steep slope.

We stopped for a time in a little village of 3 or 4 houses about 10 miles from Osh, one belonging to a Russian and the rest to German settlers from the Volga district, and refreshed ourselves in the scorching heat with milk and sour cream. The Germans had come here with a capital of $5-7,000$ roubles each, but the Russians almost barefoot. The difference in their degree of prosperity was striking. - Late at night we reached a very big village, or rather two, a Russian and a Sart village lying side by side, though having nothing in common. We put up in the house of the headman of the Sart village in what appeared to be a very clean room, one of the walls consisting of plaited branches, admitting a slight cooling draught. Our rest after the traditional dastarkhan, however, was none too pleasant, for we were literally eaten alive by insects under the old man's beautiful silken rugs.

Next morning we made an early start. The Russian village looks more prosperous, the houses being surrounded by leafy gardens and standing at some distance from each other. Here and there you see an iron roof or a larger building set aside for a school or hospital. After climbing the well-nigh perpendicular right bank of the river we reached Uzkent, a small town celebrated for the biggest horse markets in the district. The town is beautifully situated with an extensive view from the high bank, an interesting prehistoric ruin,

a couple of ancient mosques beautifully ornamented round the entrance, and a small ruined fortress (of the period of the Khans in Kokand?) commanding the road from the river. The horse market is well frequented. Horses, buyers and sellers swarm everywhere. It is all concentrated on the slope of a hill no more than 30 yards wide and $100-150$ yards long, where you risk your life at every step. Buying horses here is no easy matter. I purchased 6 horses for a total sum of $357 \mathrm{I} / 2$ roubles, two riding horses for myself and Tja , my Chinese interpreter, and four pack-horses. After completing my purchases and consuming a pälaw at the house of one of the local aksakals, we started on our return journey in the afternoon.

At 7 a.m. the caravan was to have been loaded and we were to start on horseback. The "caravanbash" (the chief of the caravan, i.e., its responsible leader), a kind of middleman between the Sart who hires out horses and the merchant or traveller who requires them, was late and it was I p.m. before the caravan finally started. For 12 roubles per horse and 20 copecks to the caravanbash I had arranged for my equipment to be transported to Kashgar within 18 days. The number of horses had to be increased owing to the corn to be carried for them. For my 6 horses I needed another 6 to carry corn. I was not prepared to believe that a pack-horse here could carry a load of ${ }_{115} \mathrm{lbs}$, but was surprised to discover that the statement was true. The pack-saddles are curious. They look like a padded hive divided in two lengthwise, with a couple of long cushions inside, filled with straw. The


Bazaar street at Osh.
closed part of the hive rests on the horse's neck, where, at any rate at first, while the saddle is new, it lies and chafes the skin. On the inside the saddle is covered with felt or pieces of felt, on the outside with strips of carpet or braid. It is fastened to the horse by a long girth with two rings, tied by a short, narrow strap on one side of the saddle. The load, often consisting of several small cases, is fastened quickly and very skilfully by means of a soft Kirghiz rope of goat's hair, 24 feet long. A couple of our new horses only allowed themselves to be saddled after much resistance, especially my white which defended itself with its forelegs and hind legs. The Cossacks might never have succeeded, but the Sarts, particularly the leader, who had recently returned from 12 years' hard labour in Siberia and on Sakhalin, were very clever and achieved the impossible.

At the last moment I was able to engage a »yigit» recommended by Colonel Kuropatkin, the adjutant of the District Commander, who was just returning. I gave him 50 roubles to equip himself and in the evening he turned up at our camp No. 2 in the village of Qaratay. He had bought a claret coloured horse, but had not had enough money for a saddle, so had improvised one of straw cushions. He looks smart and pleasant, is a Chinese subject from Kashgar, but does not speak Chinese. He provides his own horse and his wages are 20 roubles a month with everything found for himself and his horse. Before starting I rode round to my courteous former host and ate the traditional dastarkhan followed by a dish of mutton that tasted very well after a morning of packing and worry. Accompanied by him I set off. On reaching the great highway to Kashgar he dismounted and wished me a safe journey. As far as I was concerned, it began with a slight mishap. In order to cool my horse I rode through the water along a swiftly flowing ariq with steep banks. Suddenly the horse shied towards the bank, but jumped awkwardly and both of us - horse and rider - were thrown into the ariq. Luckily, my camera did not suffer, but all the papers I had on me were soaked, and the water even penetrated into my compass and inside the glass of my watch. I had particular trouble with my notebook, the index tabs being detached

Arbal with fruit on the bazaar square at $O_{s} h$.

by the water. While we were occupied in drying these important objects, we noticed that one of my stirrups and straps had disappeared. Evidently, while the horse was rearing, it had slipped from the saddle and fallen into the water. Rakhimjanoff (the Cossack) undressed and after dragging for some time with his feet, he found this object, which at that moment was far more valuable to me than many more expensive things a month ago.

The road from Osh goes NE, not SE, as marked on the 40 verst map of the General Staff. It is only about 7 miles further on, at the village of Mady, that the road turns in a SE direction. The beautiful snow-capped mountains that are visible to the south of Osh, are lost sight of and you ride through verdant, fertile country crossed to the north by a small ridge of mountains. Beyond the village of Mady the country becomes hillier. The ground here is a series of hillocks, though these seldom intersect the road, and to the south considerable mountains are visible, partly covered by snow. The population regards me with curiosity, but treats me with respect. In Mady almost everyone stood up and greeted me, as I rode through the bazaar. Kirghiz yurts appear more frequently, the villages are smaller, often no more than mud walls, in the shelter of which stand a few yurts. At the village of Qaratay (Black Foal), I4 miles from the town, we pitched our camp at about $6 \mathrm{p} . \mathrm{m}$. The trouble of packing and getting off had evidently tired the men. There was no mutton to be bought and we went to bed, hungry, in a fairly high wind. The cold of the night made us realise that we were at a different altitude than in Osh.

The caravan was to load up at 7 a.m., but again the work started an hour and a half late and we did not get off until a little after 9 . The road runs in a southerly direction along the bed of a wide river, flanked on the east and west by hills and covered with gravel and pebbles. The road for wheeled vehicles goes along the valley of the river, at times along its bed. Chains of hills seem to converge and, as it were, shut off the valley. The hills rise up, covered with verdure in beautiful, dark shades, while small flowers similar


Covered arbah at Osh on the river bank.
to our heath-blossom appear in the valley. Here and there a high stalk springs up, covered with lovely white flowers reminiscent of our hollyhocks. Fewer and fewer fields, one strip here and another far off, often high up near the tops of the hills.

Soon after starting we rode through a village, further on there were no dwellings except one or two Kirghiz yurts down by the river bank or up on the slope of a hill. Now and then we met a wandering Kirghiz family with its yurt, horses and cattle. Usually a woman rides in front leading by the bridle the animal laden with the dismantled yurt, and on the saddle in front of her is a cradle, draped in coloured curtains, in which the youngest hope of the family slumbers. Behind the beasts of burden rides the master, guarding the lot. The other members of the family ride here and there among the cattle that are free to roam at will. The women are clad in beautiful coloured cloth, chiefly red and yellow, high boots and leather goloshes and a white cloth wound in several folds round their heads and necks. The younger women cover their faces, when they meet a stranger. Bindings of coarse white cloth with coloured insertion force them to hold their feet very far forward so that often they sit their horses in an elegant English fashion. The men are dressed in grey, black or dark blue khalats. The yurt is often loaded on the back of an unharnessed bullock. Such a nomadic family certainly presents a very picturesque appearance. We reached Lyangar, a Russian village of three farms, at noon. The cook, who had been sent on ahead to our camping place for the night in order to prepare dinner in good time, had by mistake cooked it here, only 8 miles from our last camp. The road divides here and the caravan preferred the easterly road, which is worse but 7 miles shorter, to the one leading through the Chigirchiq Pass into the Gulch valley. While I was enjoying my dinner, prepared with the excellent sour cream of the Russian settlers, a Cossack ensign arrived with a couple of Cossacks from Gulcha. From him I learned that Masan Beg's yurts had been put up at the foot of the Chigirchiq Pass. As I was anxious to return his visit and wanted to see a wealthy Kirghiz camp, I decided to cover the 18 miles sear-
on its way north to
Qaratay.

ating us from that place without equipment, looking forward to some good shooting there. The road proceeds southward through fertile fields and a valley covered with lush grass. A couple of small mounds of earth resembling kurgans (kurgan $=$ large mound of earth more or less conical in shape, found in European Russia) aroused my curiosity, but no explanation of them was forthcoming.

Far ahead of us a group of high, bright mountains rises up and, as it were, bars our way. About a mile from the foot of the mountains lies a Russian settler's farm, where we were refreshed by a bowl of cool curds. Immediately beyond, the way turns eastward and ascends the mountain along a comparatively good, though in some places very steep road, suitable for wheeled traffic. After $2 \mathrm{I} / 2$ miles' climbing, often in a zigzag, the top of the mountain, the Chigirchiq Pass, is reached and a wonderful view is disclosed. The mountains, decked in the evening light in dark green velvet of varying hues, descend abruptly into a deep and narrow valley bounded in the distance to the south-east by stately, snow-capped peaks. Even the Cossacks could not restrain cries of delight and we tore ourselves away with difficulty from the wonderful picture and began the descent. To give our horses a well earned rest we descended on foot, cutting off corners now and then down steep slopes. Darkness fell and we should never have found Hassan Beg's two large yurts, if I had not induced a Kirghiz to show us the way. We arrived at about 9 p.m., having ridden approximately 27 miles across country that was hard on the horses. Our guide hurried on ahead to prepare the Kirghiz for our arrival, and as I approached, some female shadows could be seen hurrying out of one of the large kibitkas. A young man introduced himself as Hassan Beg's son and welcomed me, saying that his father had ridden to Gulcha to meet me there. The spacious yurt, decked inside with beautiful carpets and colourful hangings, looked inviting. Carpets were laid on the floor and a couple of bright silken quilts with cushions, leaving a square of fresh, green grass at the entrance. At the very back there were 4 beautiful saddles with a large number of soft, padded silken quilts,

folded and thrown over them. A row of bridle bits and head harness richly ornamented with bronze and turquoise completed the decoration of the background. In the centre of the cupola-shaped ceiling there was a circular opening through which the star-strewn sky peeped in. On the wall hung big embroidered cloth pouches in which a couple of books, a mirror and other objects could be seen. The traditional dastarkhan was served immediately. Kind souls saw to it, thanks to gaps at the door-opening, that the tea-glasses were replenished as soon as they were emptied. Half-undressed, I crept under a warm silken quilt of unusually large size and the next moment I slept as one does after a tiring day.

August Next morning I discovered that Hassan's mother, known as the Queen of Allai, was 13th. living in the other large yurt. Led by two elderly servants, she presently came across to my yurt, wearing a rich khalat of silk brocade, trimmed with fur, the gift of one of the governors-general of Turkestan. Puffing slightly, she sank to her knees and sat down on her calves, according to Kirghiz custom, on a fur spread out for her. Our very trite conversation consisted of an exchange of compliments, translated by her grandson and received with a slight inclination of the whole upper part of her body. After taking a couple of photographs inside the yurt I requested the wrinkled old lady of 96 to allow me to perpetuate her sitting on horseback. A brown horse, handsomely saddled, was led up and with a little help from her grandson and a servant she mounted with the confidence only possessed by one who has spent her life in the saddle.

Soon after I took my departure in the company of her grandson. Locked between hills and mountains, the road leads downhill almost all the way to Gulcha, 7 miles to the east, along chasms and narrow valleys. A couple of Kirghiz tombs built of bricks in the shape common to all and decorated with horses' tails on long poles, could be seen

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Kirghiz family on the move
south of Gulcha.

from the road. One of them marks the grave of Tiljaka Boua, a Kirghiz hero, who fell in one of their many wars with the Kalmuks (probably at the end of the 18 th or beginning of the igth century). The other commemorates a holy man whose name our guide could not remember. At the foot of the tomb there is a healing hot spring. The road descends all the time, accompanied by a rapid little mountain stream, called "the hot rivern, with fresh and clear water. About in. 30 we came to a valley with a sparsely growing grove of leaf-trees, embedded among green hills with soft outlines. Some white buildings with iron roofs showing through the trees indicated that we had come to the fortress of Gulcha, marked on the 40 verst map of the General Staff as lying north of the Chigirchiq Pass. Warned of our approach the village headman had had two kibitkas put up in my honour and he came forward with Hassan Beg to greet us. I paid a call on the "Garrison Commander», an essaoul or captain of the Orenburg Cossacks, whose *sotnya* (company) constitutes the garrison of this so-called fortress. When I returned, the dastarkhan was already served. After a refreshing bathe in the cold mountain stream I received a return visit from the garrison commander, while my Cossacks entertained the defenders of the fortress. The officer seemed to regard my journey with some contempt, when he heard what short marches we proposed to make at times. A platoon of his ssotnya* is stationed with one officer at the frontier post of Irkeshtam, while he himself with the three other platoons, without any other officer except an ensign promoted from the ranks, is stationed at Gulcha, where he is cut off from the rest of the world for part of the year.

Loading and saddling began at 7 a.m., but we did not get off till 8.45. The next camp August was to be pitched 18 miles further south. Such a late start is inconvenient, because you $I_{4}$ th. spend the hottest part of the day in the saddle and have little time to make any excursions before dark. The road follows the fairly swift river Gulcha faithfully in its innumerable
windings down a valley of rare beauty. The surrounding steep mountain slopes are tinged with very beautiful colours and assume very varied shapes. The road is suitable for wheeled traffic, but rises and falls all the time along the mountain slopes -- the bridges are in good condition. Much more traffic than hitherto - considerable caravans from Kashgar and Khotan laden with wool or leather. You see more and more camels. We met several caravans of about roo. You see them from afar with their up and down motion, mysterious and dignified. Large nomadic families on the move with a dozen camels are especially decorative. Their beautifully coloured garments and dark red carpets thrown over the backs of the camels are a fine sight. Now it is a caravan of horses with their pack-saddles shaped like hives, then a few dozen small asses straining on their thin legs to climb a steep hill with loads as large as those of the horses. The men who are engaged in carrying goods by horses never unsaddle their beasts of burden, as it would be difficult to resaddle those that had been chafed by the saddles. The modest creatures often content themselves with poor pasturage and you constantly see saddled animals wandering about in search of food. In view of the difficult country it must be admitted that such transport, though slow, is extraordinarily cheap. No striking monuments or prehistoric memorials are to be seen on this part of the route. About 250 yards from the fortress of Gulcha you catch sight at the foot of the western hills of a couple of small mounds of earth, said to be the remains of a Kalmuk Gulcha destroyed by the Kirghiz. A little nearer the river one notices the ruins of earthworks that belonged to some Kirghiz fortifications built by one of Hassan Beg's ancestors during a war between the Kirghiz and the Kalmuks. The Kirghiz apparently believe that a day will dawn when a great hero will arise in powerful China and reconquer them. They are convinced that China is populated by a people that is called Chinese in the towns, but Kalmuks in the mountains, living in kibitkas. Their books seem to speak clearly of these latter „Chinese». Indifferent as to who rules over them, whether Russia or China, and badly armed with old-fashioned rifles, they do not, at all events for the moment, present any source of anxiety to the Russian Government, though such an ally as the inaccessible country they inhabit may give them great advantages. It is more difficult to get to know the silent, reticent Kirghiz with his morose appearance than the talkative and excitable Sart. The former does not complain before strangers like the latter, but the Sart, of course, being a town dweller, comes into closer contact with the authorities. A tax of 5 roubles per yurt is levied from the Kirghiz and this sum is apportioned by a commission according to the property owned.

About I o'clock we came to a Kirghiz village of one farm, where we were treated to a little kumyss (mare's milk) or kemyz, as the Kirghiz pronounce it, the sharp, sour taste of which is very refreshing in the intense heat. My younger Cossack had an attack of high fever and it was only with the support of his comrade that he could sit his horse for the remaining 6 miles to our camp at Yangryk, a small plateau surrounded by high, green hills about ioo feet above the river Gulcha that makes a bend at this place. A few mounds of earth, decorated with horses' tails and coloured ribbons on long poles, indicate the spot where the Kirghiz are buried who fell in a battle against General Skobeleff. The Russian losses are said to have numbered 800 men. The Kirghiz speak of Skobeleff
with respect and call him the strong man* or the forked big beard." The cook who had been sent on ahead with one Cossack, had overriden the mark this time and it was only after long delay that we at last secured some hay for the horses and food for the men. The mistake is not surprising, as there is no human habitation in the neighbourhood. The rapid river enabled us to refresh ourselves by taking a cold bath. One of my packhorses is badly chafed.

We have postponed our departure until to-morrow as one of the Cossacks has suddenly developed fever. My tent is pitched inside the ruins of some earthworks that are supposed to have been a Kalmuk fortification. Not far off across the road there are ruins of other earthworks of a much earlier date, also built in a closed rectangle. During the day a few drops of rain reminded us that we were entering a region in which rain can often be expetted.

For the first time our start went smoothly. Saddling began at 7 and we were off by 8. The road goes SE, S, at times SW and even WSW. Bridges excellent and the road in good condition. Only one place would have been difficult for wheeled vehicles.

August 15 th. Little traffic, not to be compared with that of the day before yesterday. In the course of the day we met only a couple of small caravans, but several Kirghiz families, very numerous as regards horses and cattle, the majority using camels as beasts of burden. Soon after leaving the Yangryk plateau the road leads through a narrow pass between almost perpendicular rocks. The road describes an $S$ along the steep mountain wall and crosses first the river Gulch and later one of its tributaries. This is unquestionably one of the most picturesque and lovely spots I have seen on this journey. The pass bears the same name as the plateau and it was for its possession that the Kirghiz and Russians fought. The former were under the command of Masan Beg's brother, Abdulla Beg, and held the pass against 12,000 Russians under Skobeleff, one of whose white horses was shot here. The brave Kirghiz, armed with old-fashioned rifles, could not hold out against the guns and modern rifles of the Russians and retreated to the Allai valley pursued by Skobeleff. Masan Beg himself held a small command during the battle.

Seven miles south of Yangryk you cross the river bed, about $2 / 3$ of a mile broad and covered with stones and gravel, where the Gulch foams in several arms. The river and the road turn due west here and lead to a slight plateau protected on the west by the moontain Kuruk Taushqan. Here, it is said, the Kalmuks once surprised a brave Kirghiz leader, captured his wife and children and put him to death. Many Kalmuks are said to be buried at this spot, but no traces are now left. The river and the road turn south. On the opposite bank stands a small white building with an enclosure, erroneously given in the 10 verst map of the General Staff as Suffi Kurgan, a place that is probably $21 / 2$ miles further south on the way to the Terek Dawn pass. Here the roads to that pass and the Taldik pass divide. The former runs in an easterly direction, the latter which we took, to the south and later to the south-west. We waded across the river again and continued along its right bank that we had left only a short time before. To the east, not far


A corner of the camp at Kök Bulaq just before starting.
from our road and on a level with us, we saw two snow-capped mountain peaks, and to the south-west another, considerably further off. The whole way the river was accompanied by two rows of mountains that relieved each other without forming an uninterrupted chain. The vegetation on the slopes, as during the last few days, presented a great variety of beautiful shades of colour owing to the light and the varying degrees of drought. A couple of wild rosebushes and a little dark-red poppy grew by the wayside. Strange crooked poplars grew at the water's edge down by the river bank. With their gnarled trunks and dense crowns of small leaves they looked like willows at a distance. Today we saw another tree at the water's edge with oblong pointed leaves reminiscent of the leaves of the willow. We pitched camp about 20 miles from Yangryk on the bank of the river at a spot, where it had cut its way 12 to I 5 yards into the terracotta-coloured mud mixed with greenish gravel. The river itself had grown narrow and shallow, but its bed was again very wide. On the other bank there was a so-called »mazar», a tomb built in memory of a holy man whose name is no longer known. Next to our camp there were deep ravines in the wall of mud, cut by the rain. We examined one of them. It was 520 paces in length and wound in two parts in the most amazing bends at a depth of about 30 feet, at times forcing its way under the surface of the ground, but mostly in the open, and was strewn with enormous lumps of eroded earth. The red walls of clay take on the most fantastic shapes and the zigzags described by the ravine remind one of a labyrinth. - Kirghiz are seen on their black yak oxen with bushy tails and legs and necks covered with long hair.

August ${ }^{17}$ th.

We made a start from Kurtuk At at the usual time, 8 a.m. The road leads 17 th. slight deviations, in a SW direction. We left the telegraph line on the right bank of the river and very soon crossed to the left bank, where we followed a road that was much worse than the one we had been travelling, but which is, perhaps, not the highway kept up

by the Government. The country we rode across was more mountainous than before, excepting the road over the Chigirchiq Pass. The gradients were at times very steep and hard on the horses. In some places the road is impassable for wheeled traffic. On the slopes, so steep that a man can scarcely stand on them and must cling to their slight projections to preserve his balance, you see not only sheep, but even horses grazing. Small plateaus high up on the mountains are tilled, in an extremely primitive way, indeed, and the very modest crop is brought home along breakneck paths. - The river winds among the mountains, hurled hither and thither, and our road follows it faithfully, taking us from the right bank to the left and back again. The latter consists of hills and mountains, where the granite does not protrude from a covering of clay, gravel and sand, but on the right bank granite rocks are visible quite close to the bank, though they are often replaced by clay hills. Snow-capped peaks now appear quite near on either side of the river.

We have seen large numbers of a kind of reddish-yellow rodent with black markings on the head, the biggest of these animals being about $3 / 4$ of a yard long and fat. They peep out everywhere from their burrows and sometimes allow you to approach without showing any signs of fear. I shot a couple, one a very large one. Trees abound - resembling the juniper at a distance, but with pulpy foliage like that of the cypress. Of flowers there are a few blue ones, similar to cornflowers, and some carnation-like flowers in white and mauve. We met 4 caravans of merchandise, two of which certainly carried local articles of wool, and some Kirghiz families with their cattle. No dwellings anywhere, not even in the form of kibitkas. The imposing scenery would be even wilder and more deserted, if a meagre strip of oats or barley here and there did not reveal that invisible inhabitants make use of the soil even here. After riding about 17 miles we came to a little white iron-roofed house, next to which two kibitkas had been put up in anticipation of our arrival. The cook was in good form, mutton soup with rice was boiling in the kettle and we dismounted with pleasure to put our camp in order and do our work. There are a couple of men here belonging to a regiment stationed in Marghelan to bake bread for
an infantry detachment in the Allai valley and we bought three fresh army loaves of them, a pleasant change from our own stock of bread which is by now as hard as stone. The little white house turned out to be a telegraph office which seemed curious in a place where you ride for several days without seeing a single dwelling. During the day we had ascended 1,500 feet and were now at the foot of the imposing Taldik pass at a height of 2,849 metres at a place named Kök Bulaq (the blue spring). At 7 p.m. the thermometer indicated $+7.5^{\circ}$ R., and when darkness fell, the cold was considerable. During the day the heat of the sun was so great that I rode in shirtsleeves with my coat tied to the saddle. By the courtesy of the Kirghiz authorities 2 kibitkas are always erected at our camping places. I live in my little tent. The horses have sufficient corn, but little hay. Yesterday it was replaced by bad oat-straw and to-day there was nothing for it but to let them graze. The grass here, thank goodness, is fairly abundant and lush. - The salve for galling saddles that I bought on chance in Stockholm has turned out well. The abrasions on two of my horses have been cured in spite of their going on with their work, though admittedly they have my two excellent knitted cushions under the saddles to protect the wounds.

August During the night the temperature dropped to $+4.6^{\circ}$. Being accustomed to the intense 18th. heat in Turkestan, even such a temperature seemed very cold to me. I could not put on sufficient blankets in my tent to keep warm and at 4.30 , when I got up, I felt thoroughly chilled until I had had a cold rub down. This was the great day on which we were to climb Taldik. About 6 o'clock we rode through country highly reminiscent of the country we had traversed during the last few days.

The road runs almost due west at first and immediately beyond Kök Bulaq you ride through a pass between two high granite cliffs that compress the Gulch into a bed not more than 5 yards wide. This place is wonderfully beautiful in its wild grandeur. The road continues along valleys, following the river Gulch that has become a modest mountain stream making many curious bends. South of the road the mountains are still grander and more imposing than on the north side, where the granite often disappears under the grass-covered clay. In front of us the view was cut off by a mountain covered with clay and gravel and soft in outline. It was only when we reached its foot and saw the road worming its way in endless zigzags up the slope that we began to realise the considerable climb that was before us. According to the barometer the gradient was approximately 600 metres in $21 / 2$ miles. At the top of the pass we encountered a veritable gale. It was with great difficulty that I was able to make my hypsometer measurements. At the very top a large slab of iron ore records the year in which the road across the Taldik pass was built and the names of the contractors. The high wind forced us to don warm clothing. The descent was much easier, but we pitched our camp, too, at a higher level than the day before. - My barometers did not indicate more than 3,746 metres, but this, of course, was due to my not knowing the exact pressure.

On the other side of the mountain the road makes a bend southward and describes a wide curve, continuing in an easterly direction along the western bank of a small river that takes its curious name ${ }^{K}$ Khatun Art" (the woman's mountain ridge or mountain pass)
from a pass at the very foot of Taldik, where it has its source. We followed a valley covered with lush grass and about $1 / 3$ of a mile wide, between picturesque mountains of which those to the north were especially beautiful. Having descended gradually for a few miles the road turns SE. The valley grows wider and broadens out by degrees into a wide plateau bounded in the south at a distance of $31 / 2-4$ miles by a lofty chain of mountains, their peaks shimmering under their covering of perpetual snow. One can scarecly tear oneself away from this imposing sight. Along the Khatun Art valley, framed in grey granite rocks, one's gaze wanders across the emerald green Allai valley, divided by a terracotta coloured river, upward to the mighty snow-covered chain of mountains whose bold peaks stand out high up in the clouds. Kibitkas and tents, put up in anticipation of our arrival, were waiting at the entrance to the Allai valley and I was warmly greeted by friendly and courteous Hassan Beg, son of the last independent ruler of the Allai valley. - On the way we saw many rodents of the same kind as those I shot yesterday, even less shy here. A couple of hawks and a few doves were the only game. Some Kirghiz families with a lot of cattle, yak oxen in larger numbers, and a couple of small trading caravans were all we met during the day. A flower that is reminiscent of our daisy grows on the mountain slopes, though it is mauve instead of white, also a yellow flower like a buttercup, a mauve stock-like flower and a flower similar to a violet in colour and shape, but with its head in one piece. Our camping place still goes by the name of Khatun Art. Not far off, where the telegraph line again joined our road, there were a couple of kibitkas, a small infantry detachment from Marghelan giving the regimental horses pasturage. In the evening I had a visit from the officer in charge of the detachment and an architect, Deregoffsky by name, who was on his way to St. Petersburg from Kucha, where he and his brother had been occupied for a long time in making archaeological investigations.

The first day we spent on the Allai plateau coincided with an important Kirghiz wedding and the traditional competitions in horsemanship connected with it. When I rode out this morning at 10 , I found a group of a few dozen Kirghiz assembled on horseback. The games or competitions began almost at once, consisting in lifting a goat, slain for the purpose, from the ground, the animal being supposed to represent a girl, and making off with it at a smart gallop. As fast as their horses would go the rest pursued the holder of the goat (or girl) at a wild gallop and fought as if for their lives to tear the prey from his arms. Should the heavy and slippery carcase of the goat slide out of the arms of one of the Kirghiz, a hand-to-hand struggle ensues as to who will succeed in swinging the goat on to his saddle with a strong pull, and getting away with it. The crowd of struggling Kirghiz grows larger and larger, the blows of nagaikas (whips) resound, savage passion is reflected in faces until this strange struggle of some dozens of expert horsemen is interrupted once more by one of them, with the goat on his saddle, breaking through the crowd and converting the fight for a time into a race. At one moment you see two horsemen in full gallop leaning as far over as possible and tearing the carcase of the goat between them; at the next a single horseman who has succeeded in gaining some ground makes sure of his prey by swinging both his legs over the goat, exposing himself to the risk of being torn from the saddle when next the prey is pulled away from him in this heated struggle.


Kirghiz racehorses paraded before the races ( Allai valley).

This game is, if possible, more exciting than polo or football in Europe. It differs from polo chiefly by there being less galloping; and it must be confessed the large number of players and the wet carcase of the goat make it perhaps more a matter of wrestling on horseback than a race with skilful turns and strokes as in polo. The struggle itself is a jumble of, perhaps, about 30 horses, driven towards each other by means of hard blows of the nagaika. The nagaika plays a part up to the last moment, either to urge on your own horse or to ward off a neighbour's. At the moment, when the rider is so close that he can reach the goat, he places the nagaika between his teeth and seizes the goat with both hands, next instant, perhaps, making the blows of the nagaika fall faster than ever in order to get his horse out of the melee. The pressure during the struggle is great, but is relieved by the thick padded khalats of the Kirghiz that are wrapped round the knees and sharp points of the body. It is impossible to describe their expressions and, unfortunately, to photograph them at sufficiently close range. Very frequently someone takes a toss. The Kirghiz bring several horses to the festival, saddling them as required. The man who succeeds in carrying off the goat and casting it at the feet of the spectators is rewarded by their cries of joy and a sum in silver. The game is watched keenly. The spectators, a number of greybeards with wrinkled faces, are mounted and gallop from one side of the field to the other. They will dash wildly across the bed of a river to follow the game, getting drenched from head to foot and many horses and riders being brought down in the crush. Sometimes a string of horses and foals tethered together is surrounded by the combatants and swept along with them irresistibly. - This particular game ended on the opposite side of the river Allai, which is a very modest stream here with brick-red water, and the father of the bridegroom invited us into his kibitka for a rest and refreshment in the shape of kumyss, lumps of sugar and „cakes» made of flour and a little egg and fried in mutton fat which tasted well. The women, arrayed in their holiday best,

## Kirghiz women outside the

 kibitkas after the game and entertainment.
were in a separate kibitka. At my request they were asked to come out. They appeared in high boots with a characteristic manly gait and stood in a row with downcast eyes to be photographed.

After refreshments the game was resumed on rested horses. This time the goat was replaced by a slaughtered calf, the weight of which increased the difficulty of the struggle. In about an hour a halt was called and a toothless old fellow without any voice vainly urged those present to go in for a wrestling match with a herculean Kirghiz who had dismounted to wait for an opponent. After this there was a pretty bout of wrestling on horseback between pairs of boys of 7 to 9 years of age. Having started their horses towards each other by a blow of the nagaika, they seized their whips between their teeth, extended one hand towards each other, while bending over the other side of the horse's neck and hanging on to it with the hand that was free, and made desperate attempts to drag each other from the saddle. When this occurred, the delight of the spectators knew no bounds and the victorious youngster was generously rewarded with small coins.

When this had come to an end, in lads of 8 to 12 rode up on trained racehorses, carefully covered up in hoods and several blankets of felt and woven carpet. The boys trotted up and down a couple of times after removing the hoods and blankets and then walked their horses to the starting point about 1 I/2 to 2 miles from the spectators. Soon a cloud of dust in the distance showed that the race had begun. Towards the finish each horse was met by a grown-up Kirghiz who seized it by the bridle and endeavoured to get every ounce out of it by whipping it with his nagaika and galloping alongside and ahead of it. This little manoeuvre caused great disorder and feeling ran high. The horses were mostly stallions, all of them trained for a couple of months. According to what the Kirghiz told me, these horses are used solely for racing and it is only at a later age, often when they are is years old, that they are sent to the stud or used for work. The boys rode on small wooden saddles with a little rug thrown over them. The stirrups were also of wood to reduce the weight. The horses were carefully groomed, had shining coats and plaited


Kirghiz in a small kibitka village (August mIst), rolling felt between straw mats, later worked up by the women.
tails carefully tied with yarn. - The race was followed by another competition for the calf. This time the object was to carry it up a hill and place it in a fixed spot. The men were up the hill time after time, but had to come down again without reaching their goal. The prize, a humble khelat, was finally carried off by one of Masan Beg's relatives.

I was pleasantly surprised to see the interest the people showed in these competitions. About an hour after the festival had begun the place was swarming with spectators, ertainly not less than 250 horsemen, and on this occasion the games were only on a small scale, not a big festival, when there are races of 30 or 40 miles. The fact that these simple folk who spend their hard lives in kibitkas in a constant struggle with niggardly nature, keep horses exclusively for racing and train them to walk, trot and gallop, shows an unusual interest in horseflesh. Good horses, by the way, are dear and cost from 300 to 600 roubles. - I made several attempts to join in the struggle for the goat and once succeeded in getting it on to my saddle. It was not so heavy as I had thought and on a really good horse I might have got away with it.

August In a couple of kibitka that I visited I was treated to kumyss, sour milk with „kaimak», 2oth. a kind of savoury, thick, boiled yak cream floating in big lumps. I had an opportunity of seeing the primitive looms on which the Kirghiz women weave their rough cloth, made in very narrow, long strips. I was able to come to terms at a comparatively high price for a loom composed of pegs and loose pieces of wood and a woman's headgear. These objects have some ethnographic value.

August We started at 9 and rode 24 miles, almost all the time in an easterly direction along 2Ist. the wonderfully beautiful Allai valley with its rich verdure against which the southern chain of lofty mountains, heavily capped with snow, produces an amazing effect. During the night the thermometer had dropped below freezing point and snow had fallen in the

Kirghiz women rolling felt.

mountains, so that the lower hills north of our road were also partly covered with snow, which in no small measure heightened the beauty of the scene. Immediately after starting we passed some trenches with parapets made during some manoeuvres, and further on in the Allai valley we saw some larger ones belonging to the time when the country was conquered by the Russians. In the eastern part of the valley there are some ruins of Chinese fortifications built about 50 years ago.

In a Kirghiz village consisting of 4 or 5 kibitkas I was able for the first time to watch the women rolling blankets of wool and camel's hair. With the permission of their husbands I photographed a dozen old and young women at this occupation. The cattle are tall and fine, the most beautiful I have seen so far, piebald cows and oxen, red, red and white, or black and white. The mares are beautiful and deep-chested. - The road ascends constantly, becoming steeper the nearer it approaches the eastern end of the Allai valley. Here the valley runs into hills divided by the beds of streams (mostly dry at present) that lead gradually and almost imperceptibly to the summit of Tumburun ("The Frozen Nose») which is about the same height as Taldik. The barometer, uncorrected, indicated approximately 3500 metres. A great number of caravans with merchandise met us on the way. One caravan of 500 or 600 camels moved across the plateau in a number of columns. The ability of the camels to keep at an equal distance from each other creates the impression of soldiers drilling. At 5 p.m. we reached a narrow, short valley on the other side of Tumburun, where I was delighted to see kibitkas put up. The cropped grass and clearly visible tracks of hundreds of horses indicated that this spot was frequently used as a resting place for caravans. Towards evening the cold became fairly severe. We had to wait a couple of hours before we got the mutton necessary for our soup. A brace of wild pigeon I had just shot, roasted on a spit, fortunately put matters right for me. There was heavy hail at night.

August The season of bad weather has evidently set in. The night was cold, $-4^{\circ}$, and in the 22nd. Irkeshtam early morning and when we got up, it snowed a little and there was a high, piercing wind. The hilly country and the pitch-black night enabled some of the horses to break loose unobserved and after a prolonged search we found 2, but 3 others had disappeared completely. All the efforts of my men and of the Kirghiz enlisted by Hassan Beg proved unavailing. The caravan started about 9 and I rode on ahead to Irkeshtam. Some eagles delayed me, but my attempts to shoot them failed, partly on account of the distance. The road, rising and falling incessantly, leads in an ESE direction with slight interruptions and is hard on the horses. It can be confidently asserted that it is impassable for wheeled traffic. The mountains it follows are a conglomerate and in some places you see obvious fossils. On the pinnacles you find large and small stones, which, deeply grooved by constant storms, have acquired the most fantastic shapes. The road leads across 4 or 5 river beds with very little water, full of large round stones that make the going difficult for the horses and probably roll unceasingly when the river is in spate. The water in these arms of the river is coloured brick-red by the surrounding red clay. They are arms or tributaries of the Qizil Su ("The Red River») or Kashgar darya as it is called in its lower course, a river that runs through a swamp into the Yarkand darya, the main artery of Kashgaria. -- Having ridden about 18 miles I arrived at Irkeshtam, the last Russian post before crossing into Chinese territory. The commander of the platoon of Cossacks stationed here, sub-essaoul Bek Tchurin, had placed a room at my disposal and begged me to consider myself his guest. A large kibitka was at once made ready for the men.

August What a strange life for a man in this little fort, shut in between high mountains, with
23rd. the training of about 30 Cossacks as his sole occupation. My host told me that he had had to act as midwife five months ago, when his wife presented him with twins. He was to be relieved in a fortnight and had the prospect of making the anything but easy journey across the mountains with the babies cradled in cases on the baek of a pack-horse. The fort is of no importance for purposes of defence; it is merely a small battlemented brick tower with loopholes for rifles. At the foot of the steep bank lies the Customhouse, quite close to the bed of the river. Here the telegraph line ends. On the opposite side of the cleft in front of the fort stands a stone pillar that marks the frontier between Europe and Asia, between Russia and China, those two great powers so full of contrasts and yet in many ways reminiscent of each other. - In the afternoon the caravan set off with the exception of our own pack-horses, in order to await us at Naghara-chaldi, a place with good pasturage, where Yaqub Beg had a frontier post at one time. - In Irkeshtam my horses, that had had to be content with meagre rations for the last 5 days, were able to fill their bellies with hay that I bought for 80 copecks a pood ( 36 lbs ) and I was able to replenish my stock of corn for the rest of the journey. Between Osh and Kashgar no corn is to be bought and it is only in a few places that even inferior hay can be had. If you do not want to starve your horses, you must have plenty of corn on their backs.

A mountain goat and buck hunt to which I had been looking forward had to be abandoned, because the Kirghiz brought the news that the game had vanished. Instead I en-
joyed my hostess's hot buns and excellent plain dishes, which was, perhaps, just as well, for I had an attack of fever and had to take quinine.

Now that my journey through Russian Turkestan is to come to an end in a few hours, I must jot down my impressions, superficial and yet definite, of the feeling among the Sarts and Kirghiz. One is struck by their inclination to criticise and scrutinise existing conditions and their apparent contempt for the representatives of the governing authorities. You never hear a word in recognition of the benefits they and their country have obtained in the form of two railway lines, better roads, a flourishing cotton industry and probably much besides that I have had no opportunity of seeing, and above all in the security and peace that this people, impoverished and weakened by constant warfare, now enjoys. Instead, whether you wish to or not, you have to listen to their criticism, apparently often unjustified. Illogicality, childishness and inability to take a broad view of things are typical of the Mohammedans of Turkestan. Seizing on trifles they criticise everything, even reforms that undoubtedly represent a step forward in this or that sphere of civilisation. It is certain that large classes among the people of Turkestan entertain political dreams and hopes that no longer seem to them utopian after the unfortunate outcome of the last Russo-Japanese war. Among the Sarts such dreams take a more concrete form and seem to be more widely spread than among the Kirghiz. Impotent at present owing to the lack of arms, the latter are conscious of the fact that only a foreign power can realise their political aspirations. Though they do not as yet represent any danger to the Empire, these people have apparently, owing to the course of events, attained a certain measure of political maturity which expresses itself in their demands for reforms, extended rights and other aims and ambitions. The question is whether Russia, by enlightened leadership, can succeed in guiding this process in a direction consonant with imperial policy, or whether the leadership of these people who scarcely read anything but the Koran at present, is to pass into the hands of powers inimical to Russia and this ferment, by degrees, adopt the form of a general Asiatic or Anti-Russian Mohammedan movement.

We crossed the Chinese frontier in the actual bed of the river and some distance further on we rode across the rapid Qizil Su , the water being up to the horses' bellies. One of $24^{\text {th }}$. the pack-horses stumbled on the stony bottom and disappeared immediately under water. The horse and its burden were fished out, though one case containing our medical stores was only salved about 150 feet below the ford. From the river the road leads along a cleft in the rocks in a $\mathrm{N}, \mathrm{NE}$ and finally an E direction, debouching into the valley of a river that leads in a southerly direction to Qizil Su. Across the frontier the character of the country changes as if by magic. Vegetation disappears and the mountains, covered with stones, thick gravel and sand, grow lower. The strong spring floods carry along masses of boulders that remain lying in the dry bed of the river. The mountains with their alluvial structure, the boulders and the barren ground indicate that at some time this was the bottom of a sea or river. A wild and desolate landscape, wherever you look; the people, too, have disappeared. The road leads into the valley of the river Qara Terek which is reached in $3 \mathrm{I} / 2$ hours and followed southward until the Naghara-chaldi runs into Qizil

Su. A small Chinese \#impanj", marked on the Russian maps as a ruin, is called Igen or Dijigen. Next to it a bare dozen of Kirghiz kibitkas. The vegetation reappears in the valley of the Qara Terek. Narrow pastures with a clump or two of trees extend along the river. I shot a small hawk and missed a majestic eagle. The road we travelled to-day is bad and nothing is done to improve it. Sometimes, when the Qizil Su can be forded, a shorter, but even more difficult road is used leading, without the détour to Igen, along the right bank of the river straight to Naghara-chaldi. - In Naghara-chaldi we found lush pasturage and clean river water - all that is necessary to make a bivouac pleasant on a beautiful evening. A Chinese soldier came to forbid us to let our horses graze, a command to which obviously little attention could be paid, as there was no hay to be bought.

## August

We started in fine, penetrating rain. Wherever the thick layer of stones did not make the ground sufficiently firm, the road was wet and slippery. The character of the landscape and structure of the mountains are the same as yesterday. Very bad road. Crossing the river was easy, as there was very little water. Slight vegetation appears in the Qizil Su valley, otherwise the country is bare. Near the Chinese frontier fort, Ulugh-chat, we followed the road - a footpath that winds far above the river, intersecting the stecp slope of very clayey hills. The horses kept stumbling on the soaking, slippery ground. A false step on this path would send both horse and rider crashing into the rushing river some fathoms below. I tried to lead my horse on foot, but it was so slippery that I slid backwards as though I were on glass and there was nothing for it but to try to lead the horses down to the river on a slippery slope of clay and go on along the bed of the river. From below we saw that the path on which I had ridden had given way further on and I should not have been able to move either backwards or forwards. From a bend in the river we caught sight of a verdant valley with the greyish-yellow mud walls of the fort of Ulughchat standing out against the hills beyond. The fort is built in the shape of a square with 4 turrets, loopholes and battlements, but with no moat. It houses the commander and about 50 men instead of the prescribed 130 . The Mauser rifles are presumably kept by the commander, training being done with old muzzleloaders. The commander is a man of 50 or 60 , withered by opium smoking, half of the men are Kirghiz, the rest from the interior of China, many of them also opium smokers. - We were well received and were given two rooms. We spent the day reading and chatting with the Chinese. It was very pleasant, after living in tents in the Allai mountains, to be in China again with its familiar mud houses and warm ledges (kang'), however inadequate they may appear to a traveller accustomed to European comfort. - During the day I shot a small eagle.

August To-day we had a long and tiring march. After crossing the Qizil Su near Ulugh-chat 26th. the road proceeds for about a dozen miles along the left bank of the river. The ford is difficult, the river rapid, water up to the saddle. For a considerable distance it goes along a steep and slippery slope of clay on which the horses often stumbled and almost fell into the river. From SE the road turns E, leaving the river bank and taking us into bare clay
mountains. Forcing a path over rough boulders between them, it goes from valley to valley. No animals are visible except the skeletons or half-decomposed carcases of horses and asses, evidence of the hardships of the road. The beds of the river and streams are dry, without a drop of water. The road ascends higher and higher. You long impatiently to be able to begin the descent and reach the water. Close to a few patches of water I was able to dismount at last at 2 p.m. and let my horses, exhausted by climbing up and down slippery roads, refresh themselves with a short drink, while I shared a bit of bread and a melon bought of a caravan from Kashgar with $\mathrm{Ljo}^{2}$ and Yanusoff. In the hope of finding something to shoot I usually ride with them. At about 5 p.m., we reached, on a wild and inaccessibly high bank, the ruins of a square fort with 4 turrets, built once upon a time by Yaqui Beg, and a small tower erected at some distance. Here you have a marvellous view of the opposite bank, the wide river bed strewn with gravel and boulders and a chaotic mass of clay mountains. The road winds between a mud wall, 8 feet high and facing the bed of the river, and the fort, past some Mohammedan graves with their coloured ends of ribbon, poles, horses' manes etc. Whose are these richly decorated graves? Do heroes who fell in one of the many wars rest here under the walls of this eagle's nest of a fort or is this respect shown to a mighty prince, a wise man? There is no inscription to give the passer-by any guidance. The road wriggles in innumerable sharp bends down the steep bank and goes on south along the bed of the river. Two miles from this place we pitched our camp near a group of kibitkas whose hospitable owners entertained us with milk that tasted nasty and very savoury lumps of boiled cream called maimak swimming in it. The place is called Uksalur. We had covered about 27 miles on difficult mountain roads, not so bad for a heavily laden caravan. Of the fairly numerous caravans we met, those coming from the south carried wool, rugs and leather, those from the north matches, sugar and other groceries. The horses are not fed except on grass that is mostly miserable and are worked terribly hard in such caravans. They are never unsaddled and the state of their backs is often indescribable. The nearer they get to their goal, the worse the horses look and you begin to see why so many remain lying on the road. This lack of care for animals is due to the low value of the horses ( $20-30$ roubles) and the comparatively high cost of transport ( $12-15$ roubles). A few exhausting journeys and a horse has paid for itself with interest.

After an exceedingly strenuous march of 30 miles we pitched our camp at last close to some Kirghiz kibitkas in the Qizil-ui valley, an extensive slope with stones and clay soil mixed with gravel, surrounded on all sides by high mountains. Although the sky is overcast and rain threatens, one is pleased to go to bed without getting frozen, now that we have left the mountains and cold behind us. My best horse is galled, two others too, and a fourth has hurt its knee badly in coming down these curious stone stairs worn in the narrow mountain cleft by the hoofs of thousands and thousands of beasts of burden. It is not surprising that after two such trying marches my caravan is in a miserable condition. To do 30 miles with heavily laden animals on a level road is quite respectable, but on mountain paths, where you have to clamber up and down for miles, it is undoubtedly too
much, if you want your horses to be worth anything. To-morrow I am giving the horses and men a day's rest and will move on to Kashgar in short marches.

The road runs mainly in an ESE direction from Uksalur and for about a dozen miles it goes along a corridor between the mountains in the amazing curves the water has made during centuries of undermining the soil. The walls of the gorges are at times perpendicular, at others slightly sloping. The corridor, which seldom allows us to ride otherwise than in Indian file, is so narrow in places that a horse cannot set down two feet next to each other. The ascents and descents are so steep at times that it is only thanks to the steps in the rocks already referred to that it is possible to move up or down. If you come across a fairly wide gorge, you see from a distance what strange shapes the waterworn rock has taken on. One mountain side may be full of small hollows widened by storms, another so worn that in places you can see daylight through the wall of rock. In other places it remains untouched in the most astonishing folds. At a distance it looks like a gigantic cloth of the colours characteristic of Kirghiz carpets that has been thrown on the ground and has fallen into these folds. The colours are beautiful, red preponderating in a pronounced, though not garish shade. There is also much green. The layers are horizontal or slanting, as if one side of the mountain had been raised by subterranean forces. The road consists of clay or sand mixed with large stones and gravel, at times, for long stretches, it is like a veritable quarry with enormous blocks of stone scattered in all directions. No trace of animal or vegetable life except beasts of burden that have dropped in their tracks and been abandoned to their fate. The impression is often grand, but desolate, as though you were riding through ruins upon ruins. - Having ridden about 27 miles we found that the defile debouched into a very long valley, I $1 / 2-2$ miles wide. After covering another 5 miles we discovered some Kirghiz who, as usual, willingly placed kibitkas at our disposal and an hour later the caravan arrived after climbing and struggling uninterruptedly for II hours.

August 28th.

As I had decided to do, I have remained here to give my horses a rest. - To replace the yigit whom I had hired in Osh the day before we left and who has proved unsatisfactory, I have engaged one of our caravan leaders, a so-called "qarakesh». For 30 roubles a month in wages (the former man had 20) he has undertaken the duties of a yigit. His age is about $4^{0}$, but he is strong and experienced. I believe this is well worth the extra io roubles and I must have capable men in order to find more time for my own work.

August The rest yesterday has done my horses a lot of good. I have been able to exchange 2gth. the one with a galled leg for another, a couple of years older and of inferior breed, but at any rate able to work at once. The transaction cost me 5 roubles. Thus I have only one horse with a serious saddle-gall. If I can cure it, all will be well.

The journey today was in a SE direction down the Qizil-ui valley. The river bed here. at all events at this season, is practically devoid of water, though otherwise the ground is marshy in places with small patches of standing water. Some rain in the night had made the ground wet and at times the horses sank deep into the marshy clay soil. About

14-15 miles from our bivouac the stream we had been following joined the river Uruk in which there was a good deal of water. We crossed a bridge built of crooked tree-trunks and to judge by the fact that people were sitting drying their packs in the sun, the ford must be deep. Here lie the ruins of Karanglik, a Chinese fort built in the form of a square (on the 40 verst map) with 4 corner turrets. The length of the walls is about 27 feet, the crumbling moat is about 7 feet wide. Clay walls $101 / 2$ feet high, with battlements and loopholes, in comparatively good condition. The district was still barren. Poor grass on the stony soil in the river valley itself, but the mountain slopes devoid of vegetation. The folds in the ground grew more marked - everywhere the stony soil cut through the bare clay surface. The mountains were lower and the small patches of snow we could still see yesterday and during the previous days were disappearing altogether. SE of Karanglik the road turns E, leaving the river behind, proceeds for barely 7 miles between rocks on a low plateau and comes out into the Ming-yul valley, where we pitched our camp in a shady little village of the same name. There was a small barracks surrounded by a mud wall and intended for the men of the Chinese post. Among some caravanserai and other houses a temple-like building, surrounded by stones and built of planks with gaps between them, had been erected here to commemorate the reconquest of Kashgaria by the Chinese. I put up in a caravanserai, small but pleasant thanks to some shady trees on either side of a little ariq that rushed and roared like a cataract. A primitive mill that ground as much as 70 lbs a day was built on it. - Lying on a coloured rug spread out by my host in the shade of the trees I wrote up my diary in the brilliant moonlight.

On the way I enjoyed the company of my host of yesterday, one of the Kirghiz elders travelling to Kashgar on official business. He thought that the Kirghiz in Russian Curkestan were better off than those in China. The taxes in the latter per kibitka are equal to about 360 lbs and about 10 roubles in cash, besides I sheep in the form of tax for every 50 or even 100 sheep and 1 sheep for every additional 100. - During the day I shot a wild duck.

I left at 6 adm. without waiting for the caravan. The road continues along the same stony river bed on which Ming-yul lies. At a short distance from the village stands a picturesque ruined tower on the steep bank. The road leads SE into a barren stony valley enclosed on the N and S by chains of mountains running east, the northern chain gradually growing level with the horizon. The southern chain, considerably loftier, has a majestic chain of mountains with perpetual snow in the background. The desolate scenery, the ancient bottom of a sea covered with large stones, is devoid of any vegetation, and is intersected here and there by an arm of the Uruk whose inconsiderable muddy waters murmur along in an easterly direction. Far to the east a green belt seems to indicate the limit of the Kashgar oasis. Now and then we met a company of Kashgarliks (the Sart population of Kashgar), men and women mounted on horses or asses. The richer men rode with open umbrellas of European make. The women wore a more becoming garb than the Sarts in Russian Turkestan. The long, thick coats thrown over the dress and the black veil over the face were replaced by a transparent coat of white muslin,


Two old Kirghiz in the camp at Qizil-ui.
and a bit of white or cream coloured tissue, edged with a coloured fringe at the bottom, tied round the forehead under the coloured cap. This veil is usually worn folded over the cap and is lowered to shield the wearer from the gaze of the curious. The headgear is pointed and has a narrow leather brim at the bottom. In shape and colour it is reminiscent of a Russian boyar cap. The beautifully coloured dress is not so loud as the dress of the men in Bukhara. A long mantle of transparent lace or muslin-like material reaching to the feet is often worn over the dress. One is struck by the dissimilarity in the Sart types in Russian Turkestan and here in Kashgaria. A regular Jewish appearance indicates that Iranian influence predominated here more than in Russian Turkestan.

We rode through the inviting green oasis on soft, dusty roads between dust-smothered trees that gave but little shade. The oasis is cultivated and densely populated. The road runs through small fields between low mud houses surrounded by walls. South of the road the stony desert still extends for a great distance in a narrowing strip as though struggling for power against the fertile oasis. - The sun was scorching. More and more frequently we demanded impatiently of the Sarts whom we met, how far it was to this Kashgar that seemed so near and yet so far. One man said a mile, another thought it was 6 miles.

The houses were close together, the dust and traffic on the road increased, but still no town was visible. The sun burnt me, my head felt heavier than usual and I had an almost irresistible inclination to lie down under a tree and give up riding any further. In vain I tried to refresh myself with a few succulent peaches. My mouth was parched and my tongue stuck to my throat and gums. Evidently I had got a slight sunstroke.

We were inside the town and passed the wall of a high fortress. I was thinking, in despair, that the Russian Consulate was probably in the Chinese town 8 miles off, when suddenly some comfortable houses with green iron roofs indicated the presence of Euro-

The Chinese Taotai of Kashgar.

peans. Sure enough, the branch of the Russo-Chinese Bank and, quite close by; the garden and building of the consulate. A roomy edifice on the bank of the river had been set aside for me during my stay in Kashgar. I spread my raincoat on the stone floor and pillowing my head on my haversack I lay down with delight. - In the evening, having made myself more presentable, I called on the Russian Consul, Sergei Alexandrovitch Kolokoloff. A bearded yigit announced me and I was welcomed by a man of middle age with an expressive, though delicate and nervous countenance. Evidently pleased by a visit from an explorer who spoke Russian fluently, he invited me to have my meals with him during my stay. K. was fond of joking, cheerful and delighted to entertain guests.

In the afternoon I called on the Chinese Taotai and his assistant with whom August I had exchanged cards the day before. The Taotai, Juan Ching Jo, a thin old man of $3^{r s t}$. distinguished appearance and manners, received me with exquisite politeness. Wearing Kashg، his hat of office with its red knob and fringe, he met me in the hall of the residency and led me through two anterooms into a smaller one that looked like a bedroom, where a table had been laid with a great many sweetmeats. With a polite gesture he requested permission to remove his hat, whereupon he offered me a steaming cup of tea after putting two lumps of sugar into it with his own hands. In addition to fruit in which Kashgar excels, cakes fried in dripping and some kind of force-meat were served. After quite a long conversation I withdrew, accompanied into the hall by the polite old man. - When I called on the Tong Shang Ljo Dje, who received me wearing his fringed hat, the ceremonial, entertainment and conversation were absolutely identical. Ljo Die was a tall Chinese of a little over 30 with a touch of the Japanese in his manner. From the residency I rode through several gates embellished with painted dragons and terrifying figures to
the little settlement of the Swedish missionaries, two comfortable stuccoed and painted clay houses separated by a wall and surrounded by beautiful gardens. Built 7 years ago in a clay pit without a single bush, the older of the two houses now stands in a fine shady garden with tall trees. The soil is so fertile that, if you were to stick your cane into the ground, a year later you would find a flourishing bamboo plant growing there - nothing is wasted.

The work of the missionaries consists to a large extent in school teaching and especially in medical assistance. In the latter field their help has been in great demand. They work in two groups, one among the Chinese, the other among the Sars. Among these Mohammedans they have worked for a fairly long time and yet not one of them has consented to be baptised. The Chinese, however, embrace Christianity more readily. Dr Högberg, the missionary, is particularly busy as a doctor. During one of my visits to his dispensary I counted 37 patients in the little courtyard. There lay an emaciated Cart with such a deep knife-wound in his breast that in breathing he expelled a bowlful of matter out of his lung. A number of neglected, severe wounds showed that people put off a visit to the doctor as long as possible. In a couple of very small, dark rooms there were two patients who had been operated on the day before for cataract, a disease very prevalent among the Sarts. The fact that Dr Högberg has trained himself to be a doctor by studying on the spot and by constant practice, makes this admirable activity and this energetic work all the more deserving of recognition.

September
Almost a month has passed since our arrival. The local European colony, numerous according to Central Asiatic standards, has taken up more of my time than it should have done.

The Russian Consulate occupies a large space on the right bank of the river. Besides the house occupied by the consul, formerly the residence of Yaqui Beg, the talented ruler of Kashgaria, there are buildings for the chancellery, staff, the Cossack guard of 60 men, its commander, a church begun, but not finished, and another couple of houses. The one-storeyed clay houses surrounded by walls, are built without any apparent plan. The garden is not large and the river sees to it that it grows less year by year. Beyond the Consulate wall, confined between it and the crenellated town wall, 6-9 feet in height, lies the branch of the Russo-Chinese Bank in a cool and comfortable house built, like another one for the staff of the bank, in European style.

The Consulate is very busy and there are a considerable number of callers who assemble in the morning in the courtyard before the Consulate. In all the principal places the consul has official agents under the title of "aksakal" and in Kashgar itself he has a multitude of others, unofficial. In the absence of any other intercourse with the Chinese than purely official calls, without any local newspapers, it is only by means of gossip picked up in the bazaars that public opinion and events can be followed. However inadequate this intelligence service may seem to us with our easy and rapid means of communication, it is undoubtedly a factor of no mean importance in the life of the people.

Above Yaqui Beg's former residence, a hillock with the "China Bags" shady gardens
is situated not far from the river's bank. Here Mr Macartney, the British Political Agent, has lived for 16 years. His Chinese blood, inherited from his mother, and his long service have bound him closely to this country. When you watch his selfcontrolled, correct, dark-complexioned figure and hear him talk with sympathy and devotion of this community with its mud huts and peculiar conditions, you realise that he belongs to this country more than any European could and that, if fate should ever remove him to some other place, he would pine for his quiet, his books and his flowers in the China Bags gardens. He knows the country and its people and history as no other European does. Without any fuss or unnecessary talk he labours systematically and perseveringly, promoting the interests of Britain, or rather India, in Kashgaria. In struggling with great natural difficulties he can only approach his goal step by step. With admirable perseverance roads have been built over well-nigh inaccessible mountains and opportunities have been created for Indian trade.

Outwardly Kashgar closely resembles the Sart towns in Russian Turkestan. The same covered bazaars, the same booths, craftsmen, one-storeyed mud houses etc. The town itself is surrounded by a crenellated mud wall, about 17 feet high, out side which many suburbs have grown up, giving it the appearance of a fortress. The barracks, the houses of the local officials, a few Chinese shops and an occasional Chinese walking about remind you that you are on Chinese soil. There is much traffic in the streets, especially on a Thursday, the day of the bazaar. The rural population comes to town on that day in large numbers to do its shopping. All the shops are open and the best wares are displayed. On other weekdays many shops are often closed. The Sart is lazy and content to live for the passing hour, from hand to mouth. If he earns something to-day, he will do no more work so long as the money lasts. During the melon season, in particular, his inclination to do nothing is as its height. He enjoys the excellent juicy fruit and sings and plays far into the night. Trade is lively in Kashgar, especially trade with Russia, the whole of whose imports and exports to Kashgaria pass through this town. The occupation of a merchant is respected above all others. A native will make great sacrifices in order to enter the ranks of the merchants. He often incurs liabilities that he cannot possibly meet in order to obtain the credit he needs for starting his little business. Intentionally he values his goods too highly or offers property as security to which he only has a very doubtful title or possibly none at all in order, often on very hard terms, to get the business going that is to provide the prestige on which he bases his future. The security which it should, of course, be easy to check up on in this small community, is always accepted by the other party whose business is probably built on an equally shaky foundation. The entire system of trade is based on a widespread and far from effective system of credit. The date of maturity simply means the time at which you begin to postpone payment on every imaginable pretext. It is, no doubt, owing to such peculiar conditions that no large Russian trading company has been able to establish direct business in this country, the whole Russian trade being in the hands of several hundred natives of Russian Turkestan. A prominent position in the ranks of the merchants is occupied by "Tchar bazartchi», pedlars of a sort, who wander


Mosque and graves in the vicinity of Kashgar.
about the country with a horse or an ass laden with goods to the value of a couple of hundred roubles at most and visit the most inaccessible places inhabited by the nomads. Contenting themselves with incredibly little, they develop admirable endurance and energy. Hindus and Chinese go in for usury. They have numerous pawnshops. Anything can be pawned there for a commission of a mere $20 \%$ a week. Their well-filled warehouses show that the supply of clients is not drying up.

The living conditions of the Sars are extremely simple. The architecture here is, if possible, inferior to that in Russian Turkestan. A house like a cupboard is built of unbaked bricks of clay with a mud floor and a flat mud roof covered externally with a little clay mixed with straw. A severe thunderstorm, fortunately a rare occurrence, or a slight earthquake is sufficient to demolish this unstable dwelling entirely. Inside it is usually still less inviting. A couple of rugs spread on the floor constitute the common bed of the household. The fireplace is merely a hole in the wall with a chimney above it. To keep the hut warm on winter nights a metal pot of glowing coals is placed beneath a kind of wooden stool covered by a padded blanket round which everyone lies, trying to cover himself with a corner of the blanket. A hole in the roof above the door lets in a little daylight and helps to get rid of the smoke that wells up constantly from the fire. A tall copper teapot on a stand, a few clay pots and pans, a lamp of burnt clay, a spade rather like a hoe, and tools and instruments for dressing cotton are about all the household utensils a Cart possesses. The wealthier rural population is better provided with household goods, wearing apparel and cattle. Besides, the town merchants, especially the richer ones, have a quantity of clothes, the women's clothes often being quite valuable, stored in chests and trunks, a couple of cane-bottom chairs, a lamp, a book or two, a few boxes of caramels and other sweets and possibly a bottle or two of spirits. The houses are built more carefully, the window frames are European and on the inside of the walls there are a number of niches, often decorated,

where household utensils etc. are kept. The cattle are few in number and poorly cared for. A horse or donkey as a means of conveyance, a cow and a few sheep - a Sart peasant seldom has more. He keeps his cattle out-of-doors all the year round and gives them too little fodder. Milk products in the form of skimmed milk, sweet and sour, and thick, slightly sour cream are sold and consumed for preference. In both cases their cleanliness is doubtful. The food of the Sart consists of a kind of wheaten bread mixed with chopped onions and mutton fat in various forms, and tea. Weak meat soup, shashlyk and especially pälaw are accounted delicacies Vegetables and fruit are consumed in quantities and are often almost the only food of the people. Tea-houses where the events of the day are discussed over several cups of weak tea without sugar, are less numerous here, though as largely frequented as in Russian Turkestan. A large number of evil-smelling kitchens prevent the rural population from dying of starvation. The commonest dishes are palaw, meat soup and small pies filled with chopped vegetables, meat and a lot of onion. All the food reeks of onion.

Education and spiritual life are at an extremely low level. In the schools nothing but reading and writing, parts of the Koran and religious poetry are taught. The curriculum in the higher schools, the so-called »madresse», does not differ from that of the lower schools except in a more extended study of the Koran and a little physical geography The height of education is the knowledge of the whole Koran by heart. Among the neducated» Mohammedans this is by no means rare and such proof of education always ensures its possessor great respect among the population. No books but the Koran circulate among the people and it is only quite recently that a few Sarts have begun to take in Turkish or Persian newspapers. Bazaar gossip, however, is so developed that news spreads like wildfire from town to town, if not as rapidly as by telegraph, at any rate as surely. The wandering mendicants, "maddakh", are a factor in spiritual life worth noting, telling with feeling in the streets and squares of the splendour of great historic events of bygone days and captivat-


A group of Sart musicians
on the terrace of the author's
house at Kashgar.
ing their audiences by their talents as story-tellers. Old and young flock to them to give their oriental imagination some nourishment and listen with obvious satisfaction to the beggar's tale, often interlarded with satirical remarks on current events. - The position of women is quite a subordinate one. Their work is entirely confined to the home. They do not visit the bazaar, despite its great attraction, except to make purchases in silence or sometimes to sell things they have made. They do not cover themselves up as carefully as in Russian Turkestan, though you seldom see a young woman moving about with her veil thrown back. Their rough hands testify to the hard work they perform in the quiet of their homes. The women's lack of education is even more marked than that of the men and is further emphasised by the shyness that is a result of their fenced-in life. - Polygamy is very rare owing to the poverty of the people. It is only the wealthier merchants who avail themselves of this privilege. There are, however, whole streets of light women who offer the travelling merchant the joy and consolation he may require during his sojourn, often of several weeks, in a strange town, between two long and arduous journeys. In Khotan a whole class of these consoles is said to be available for travellers under the name of merchants' wives.

October My plan, announced repeatedly and as frequently postponed, of making an 6 th. excursion south to Yarkand, Khotan and possibly to the Tach Kurghan and Taghdumrapchan. bash mountains has at last been accomplished. The wish to see the whole southern part of this country that I shall probably not visit again and the hope of being able to have some hunting in the Taghdumbash mountains, famed for their shooting, have always tempted me to make this trip. It is probable, however, that I would have undertaken the trip, even if it had not presented an opportunity like the present of making some interesting ethnographical and perhaps archaeological collections. Once I had discovered that it was possible to cross the Muzart Pass to Qulja later in the winter, I did not hesitate.

The author outside his


A number of cases have been left behind in Kashgar in a shed kindly placed at my disposal by the manager of the bank, and with the rest loaded on to 3 pack-horses I am now on my way. I have two new yigits, one of whom has served for a long time as cook to some of the Swedish missionaries and performs the same functions for me. Rakhimjanoff, the Cossack, partly dressed in Kirghiz garb, is in charge of my little caravan. In order to force myself more energetically to speak Chinese (I cannot dissuade Loo from answering me in Russian which is quite as good as my Chinese) I have made an arrangement with an elderly Chinaman from Khunnan. For 25 roubles a month, his board and 2 horses hired by me for himself and his servant, he is to accompany me on the journey.

It is always difficult to make a start after staying in a place for some time. My packhorses did not get off until about io atm. and I followed at noon. The road that leads south is good and for the most part suitable for wheeled traffic. For heavy vehicles, such as baggage vans, a couple of bridges would require strengthening slightly 4 or 5 miles south of Yangi-Shahr you cross an arm of the Qizil Sub by a bridge that is not sound. The river is not too deep, however, to be crossed alongside the bridge. Its width is $2 \mathrm{I}-24$ feet. A little further on the road leads over a still less formidable river, a tributary of the former. 4 or 5 miles north of Yapchan the road is bisected by the river Oi Kobrek, flowing in several arms over which bridges have been thrown with the help of some sandbanks and islets. The bridges require some slight repairs but in ordinary conditions it is possible to wade across the river. During the spring floods it submerges the flat valley, some miles in width, through which it has cut its way, and then traffic is interrupted for about a fortnight. There would be no great difficulty in building an embankment along the river. The district traversed is very sandy in places. The soil is cultivated everywhere except in the sandiest places, but is exhausted and in need of manure.

Shortly before reaching the river Oi Kobrek the road joins another rather more westerly

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.Sal musicians in
Mr Macartney's garden in Kashgar. Sorts and
Indian servants in
the background.
road that runs from Kashgar to the west of Yangi-Shahr. About $41 / 2$ miles south of the river crossing we halted for the night in the village of Yapehan. The bo houses and about go families of the village possess about 20,000 mon of tilled land, chiefly growing maize and wheat, but especially maize. Cotton, barley, millet and fruit are also grown. 'The cotton is worked up into yarn bought up mainly by itinerant weavers or woven locally into cloth. The cotton crop amounts to about 10,000 din and has scarcely varied in recent years. The price of the raw material is 24 copecks per din. The yarn fetches 12 copecks for a whole spool. A little barley, wheat and maize is sold. The water from lake Yapchan, lying to the west at the foot of the mountains, is good and plentiful. The village seems to be prosperous, though wealth is unevenly divided. The richest men own as much as 300 mon of land, while the poorer ones hold no more than $10-30$. The stock of cattle is about as follows: oxen about 40 , cows 100 , horses $15-20$, asses 200 and sheep about 200 . The population consists of $2 / 3$ Warts and $1 / 3$ Chinese.

October gt rangi Hissar.

The distance, stated to be 30 miles, is probably not more than $21-22$ miles at most. Road excellent, some parts well shaded. For a distance of about $5 \mathrm{I} / 2 \mathrm{miles}$ it proceeds in an ESE-SE direction and runs in the fourth mile into a flat, wide delta formed by the stream or river Alapa which makes a wide curve from the W or WNW and skirts the road before cutting across it and, according to the statements of the populaion, running to Khan Ariq in the direction of Maral Basho. The land of the delta formed by the Alapa and another arm of the same river, Psönn, both of which flow from Tash Malik, is very sandy. In some places the sand has formed large, low, wave-like mounds. After about 6 miles in the direction indicated it turns S and even SW , keeping on in this direction until shortly before it reaches Yangi Hissar. Approximately in the fth or 8th
target shooting.

mile it goes over the Psönn. Both arms of the river are shallow, but the spring flood is said to be so strong that the road is impassable for 3 or 4 days. The bridges and banks built over the delta in some places are bad in parts, but could easily be repaired by using trees in the neighbourhood. The improvements necessary to make the road suitable for heavy vehicles are insignificant. With the exception of small strips of field beside a few poor mud huts, the delta is entirely untilled. After about 10 miles, the road leads into an oasis where practically all the land is cultivated. The houses are not gathered together to form large villages - they are built in groups of no more than 3 or 4 , but there are a great many such groups. Soon, however, you again reach a barren, desert-like plain, which seems to burn under the hoofs of the horses. It begins about 10 miles from Yapchan, makes a détour a mile or so from there round a couple of huts and continues for a distance of about $2 \mathrm{I} / 2$ miles. The soil is sandy and in some places a layer of white salt is visible on the surface. The monotony is broken by a line of sand dunes, beyond which there is a glimpse of something green, which proves to be the first trees of a little oasis, Seidlar. The shade is welcome and you seat yourself contentedly under a mud wall and slake your thirst with melon - a form of refreshment that is offered in every village. The tilled land at Seidlar - approximately 1,200 mou - is divided among about 120 households, giving them an area of about to mou ( $3 \mathrm{I} / 2$ hectares) each. This would be inadequate in normal conditions and is all the more so here since the soil is poor with a strong admixture of sand, and there is a shortage of water. Such water as there is, is supplied by means of ariqs from the river Altunluk, which flows from Saryal. Wheat and especially maize are the principal crops grown. There is less millet and fruit. About 50 horses, 20 yoke-oxen, 100 cows and 300 sheep are distributed among the different households.

After a pleasant ride of a couple of miles through the oasis, we again entered the desert, with its saliferous soil — luckily for the last time to-day. The verdure of the Yangi Hissar


Carters under the town wall
of Yangi-Shahr.
oasis, however, was already visible in the distance, standing out against a background of lofty, snowcapped mountains that disappeared in the sand-laden atmosphere. Our impatience to reach our goal for the day made us quicken our horses' pace, and after a ride of $3 \mathrm{r} / 2$ miles across the desert we were once more on dusty, but shady roads and soon the grey mud walls of Yangi Hissar appeared among the trees. One more valley that crept up to within about 300 paces of the fortress and might some day afford welcome protection to an advancing enemy, and we crossed an easily destructible bridge over the moat, about 35 feet wide, into the typically Chinese frontier fortress and town of Yangi Hissar.

The town is built in the form of a square, the regular lines of which are only broken by some old fortifications that were used about 35 years ago in building the wall which at present encloses the town. The wall is precisely similar in height and shape to those I saw in Kashgar and Yangi-Shahr. One side faces north. The four corners are decorated with turrets, crenellated like the rest of the wall. Three symmetrically placed gates on the east, west and south are protected by semicircular encasements of the same height as the wall. Between them and the corner turret as well as on the north side there are small turretlike buttresses; these do not project above the level of the wall either, and are intended to outflank the moat and wall passages. The gates, made double by the encasements, do not lead straight under the walls, but from the side into the encasement and then at right angles to the first gate under the actual ramparts. Both gateways are built of baked bricks. The gates themselves are massive wooden structures strongly reinforced with iron. Outside the wall there is a passage, about 21 feet wide, protected by a crenellated parapet similar to the one visible above the wall. Next comes a dry moat, about 35 feet wide and 21 feet deep, that can probably be filled easily with water thanks to the local irrigation system. A low mud wall runs along the outer edge of the moat. The upper parapet has loopholes

for rifles placed in such a way that a considerable dead area is formed round the earthworks. Openings for guns are provided in the NE and SW turrets. The parapets of these and of the SE turret are of baked brick in contrast to the NW turret and the rest of the wall and parapet. Wide and comparatively slightly inclined roads built in the middle of each side of the fortress lead up to the walls, along the top of which runs a road. As you approach the town you pass, outside the wall, some public buildings bearing Chinese inscriptions. One of them describes a pond, protected by a mud wall, as a reservoir with irreproachable refreshing water. The inscription is optimistic, not to say actually untruthful, for the water is a dirty pool full of weeds and, no doubt, swarming with microbes. Well within the protection of the threatening fortress you find a regularly planned town. At first you pass some public buildings easily recognisable by the large walls erected on the street in front of their portals to protect them from evil spirits that the wind might carry. After riding through a gateway inscribed with a motto, you enter a covered-in bazaar street, usually empty and lifeless, as the bazaar is held only once a week here. The town, built in the form of a rectangle, is intersected by two such streets running from N to S and from E to W with the precision characteristic of the Chinese in matters concerning the points of the compass. In the squares formed between the walls of the fortress and these two principal streets that cross each other at right angles, are the houses of the few Chinese inhabitants, a couple of temples, the barracks of a battalion of infantry and the house and garden of the District Commander with a couple of graceful summer-houses built on an artificial mound.

It was easy enough to track down our pack-horses, for, whenever we hesitated for a moment, there was always a kind soul at hand to indicate the direction by a gesture. Nothing passes unnoticed in these bazaar streets, whither most of the people are enticed by their love of gossip. Our way led through the southern gate past the barracks of the squadron of cavalry, also surrounded by a crenellated fortress wall that runs right to the


The centre portion of the east wall of Yangi Hissar with moat.
edge of the big moat. After riding along a winding bazaar street that seemed interminable, we finally reached the gate of the caravanserai, where my pack-horses had been stabled. It is a small yard that would be quite pleasant, were it not so dusty, with a great many little, dark cubicles, the creaking doors of which and an occasional window, with a wooden grill in oriental style instead of panes, open on to the yard. In front of each room or of two adjoining rooms there is a low clay terrace, about ir /2 metres wide, on which goods are stacked, packed in cubes of equal size and wrapped in felt. Here and there a rug or carpet is spread on a terrace and you see a picturesque group of merchants from every country in Central Asia sitting cross-legged with tired, expressionless faces and doing business over a cup of tea or a common pipe. Beyond the first yard lies another, full of holes and dirt, with mud blocks along the walls. Here a few dozen pack-horses are colelected with their large saddles, shaped like beehives and padded, that are never removed. In the yard there is always a crowd of loafers that grows with surprising suddenness when anything of interest occurs. They are driven off regularly by the host of the caravanserai and reappear as regularly a few seconds later. Where there is an upper floor, it is arranged exactly like the lower one. Only the clay terraces are replaced by a common wooden balcony that runs round the yard. All day long there is an incredible coming and going in these yards. The merchants only make a short stay. One caravan succeeds another. The shouts of the drivers and the dull tinkling of the camel's bells herald the approach of a fresh caravan from a distance. It enters the little yard of a caravanserai and fills it to overflowing, so that, if by a miracle you escape having an absent-minded camel put its feet into your cubicle, you may be sure of having it filled with the clouds of dust raised by the unloading of the beasts.

The caravans of the Afghans are very picturesque with their well groomed, fine horses, somewhere between the Turcoman and Arab. The men are distrustful and shy. In dress

they are reminiscent of the Kirghiz, but the colours are more in the taste of the people of Bukhara. Both turbans and fur caps are worn as headgear. Their boots are similar to ski-ing boots and are laced halfway up the calf. A kind of puttees, wound from the top downwards take the place of stockings. Their horses are very beautiful, perhaps a trifle long in the leg and thin. Their heads are lean and noble. The buttocks are high and they have well arched, long necks. Their action is smooth and elastic. They are covered with plenty of rugs and blankets that also serve as a cover for the pack-saddle, which in their case takes the shape of a padded roll folded in such a way that it runs along either side of the backbone, leaving the latter entirely uncovered. Every horse has a necklet, often consisting of beads, with an amulet suspended from it. -The shops in Yangi Hissar do not seem to be less well stocked than in Kashgar and, as in the latter town, there is an inconceivable number of them. Here for the first time you see Indian goods that have made their way across the mountains in spite of the difficulty and expense of transport. The price of a pack-horse (that carries $2 \mathrm{I} / 2 \mathrm{cwt}$ ) is $4^{8}$ roubles, whereas between Osh and Kashgar you pay $8-16$ roubles according to the demand. Of the Indian goods tea was being sold at 64 cop. per lb., paper at 90 cop . per djin, lace (brought via Kashgar) at $4 \mathrm{I} / 2$ to 8 roubles an arshine ( 28 inches), black silk at 20 - 50 cop. an arshine, white cloth for turbans in lengths of 12 arshines at I r. 20 cop. - 3 roubles and red cotton sashes at 8-20 cop. in lengths of 2 arshines.

My stay in Yangi Hissar was prolonged by a day, as I wanted to see more of October the town and was anxious to exchange some of my horses. Unfortunately, I only succeeded Qizil. in getting rid of one of them, though luckily the most intractable of all. For an additional payment of io roubles I exchanged it for a grey ambler that was about as good, but with a far better temper. My attempts to secure an Afghan horse in exchange were not crowned with success. Neither musical boxes, nor rings set with bits of glass, nor mirrors nor even


A clay building in the desert SE of Qizil, erected to enable detachments of Chinese troops to rest. My Cossack Rakhimjanoff, my Chinese interpreter and a Chinese colonel in the foreground.
a copy of the Koran to make up the balance, could lure them. It was impossible to overcome their obstinacy.

At 7 a.m. on the inth the caravan set offand three-quarters of an hour later I followed with my two Chinese and Rakhimjanoff. The road leads SSE through the oasis towards the hills that you cross after a ride of 10 minutes at a walk. Immediately beyond this slight ridge of sandhills lies an uneven area of sand-dunes of rugged shape. The higher mountain ranges that have a layer of snow in some places and are visible long before you reach Yangi Hissar from the north, make a bend to the SSE and run parallel to the road. To the east a river appears, flowing from S to N ; it soon skirts the road and proves to be a large ariq, Manshin üstang. Before crossing the ariq the road runs for a time along the edge of the water, on the opposite side of which fertile fields appear that extend to the western side further on. The road divides about $21 / 2$ miles from the town. One branch continues in the same direction to Saryal; the other, which we take, goes NE for about half-a-mile, when it encounters a deep river-bed with very little water, the river Shagildik (Sargan lik? Saygan should, perhaps, be Sargan, for the people in Yarkand often sound a "y" for an »r») which runs northward. The bridge over the river is in need of repair; building materials could be obtained from the trees in the vicinity. From close to the bridge a large ariq Lakday tugemen has been cut to the NNW and draws more water from the river than seems right, at any rate at this season of the year. The difference in the level of the water between the river and the ariq is very considerable and once more provides evidence of the thoroughness of the irrigation work done by the population. On the way through the oasis we met several groups of a few dozen Sarts on their way to Thursday's bazaar in the town with horses, asses, oxen and various produce. From the bridge the road definitely takes a SE direction and leads into a veritable desert, the desolate appearance of which is only partially relieved by the fine chain of mountains that seems to branch off gradually from the road, to the west. A green ribbon of trees, probably indicating the course of a river, stretches along the foot of the mountains. No trace of vegetation along

the road. Nothing but sand and some gravel as far as the eye can see. The country is flat with slight ridges or mounds of sand here and there. Reed-like grass appears about 7 miles from our point of departure. There are one or two stunted trees about. Six miles further on we came to an oasis, Kelpin, with miserable sandy ficlds and only a lew houses and a mile or two further on to a similar oasis and the village of Topluk. Again an endless sca of sand almost entirely barren, only a blade of the reed-like grass of a creeping bush here and there. The country here is dotted with an infinite number of sand-heaps, highly reminiscent of the Mohammedans' wonderfully dismal and hopeless cemeteries. About 8 miles from Kelpin we reached the oasis of Tamir, the first of four oases separated from each other by strips of the same barren sandy desert, $2-3$ miles wide. At $4 \mathrm{p} . \mathrm{m}$. we were glad to dismount after the heat and dust of the day. A caravanserai in the village of Qizil a good deal less comfortable than the one at Yangi Hissar, offered us welcome shelter. With all its defects and its motley company it seemed more desirable at that moment than any first-class hotel in Europe.

In spite of its frequent shortage of water Qizil is an oasis of about 500 households. October The inhabitants complain that they are entirely dependent on the rain in the moun- Qizil. tains. The water you get is bad and gives the tea a peculiar flavour. An attempt had been made to dig an outlet in the east from a lake in the mountains, but a wall of rock barred the way and the attempt had to be abandoned. As everywhere else, property is divided very unevenly. The field area varies between 100 and 20 mou. A mou is sown with 20 tcheraks and yields an average crop of 7 or at best 16 . Wheat is grown most, but also barley, millet, maize and fruit. On a farm of 55 mou the owner had i horse, 6 oxen and 4 asses. On another of 100 mou there were only 2 oxen and 2 asses -- manure is bought
from a caravanserai. The population sells grain, if the harvest is tolerable, otherwise a little wood.

After riding for 10 minutes in a SE direction we were in the desert that continued uninterruptedly for about 30 miles until we reached the oasis of Kurabat. In the west the same chain of mountains accompanied us, though now quite insignificant in size. With the exception of the Chinese paotai poles and a few mud shelters to enable the traveller to rest in the desert these mountains are the only thing that breaks the endless horizon. The sun is scorchingly hot and the heat is reflected by the hot sand. The "paotai" poles are massive clay towers with a kind of flagstaff stuck into the roof, intended, at any rate in former days, to signal by means of beacons the irruption of an enemy. They were to have been built at a distance of 4 versts ( 8 li ) from each other, but according to Sven He din's calculations the distance varies considerably. The mud shelters scattered along the road are sometimes inhabited and provided with enormously deep wells with bad water. The largest of these shelters or sarais lies halfway and is called Aq Rabat. Here there is a Chinese post-office and a shelter for the traveller that is tolerable on the whole. A little fodder, bread, tea and water can be had. The water is drawn from two deep wells with a small leather bucket lowered by a rope. In spite of their shortcomings these shelters can be of good service to a weary traveller. The uninhabited shelters lack the greatest necessity in the desert - water. No vegetation, only sand, stones and more sand with a little gravel. Luckily, it is coarse-grained and the road is hard, so that we suffered less from the dust than the day before. A few miles before Kurabat we saw some creeping grass-like plants that did not even tempt our horses. The heat was oppressive. We gladly shared the small supply of tea in my flask like brothers. The traffic was insignificant, at all events during these days. On the first day we met $30-35$ asses from Yarkand with mata, a white, coarse cotton cloth, 25 asses from Karghalik with felt and 25 asses from Khotan with mata. On the second day 17 horses with mata from Yarkand to Audijan and 25 asses with felt and leather from Yarkand to Kashgar. On the third — nothing. - We covered about 27 miles during the day.

Kök Rabat is a large oasis of 200 households with about 8.000 mou of tilled land. The water is conducted along ariqs from the Yarkand darya, although the adverse conditions of the country make it difficult to supply a sufficient quantity of water. Tchumiza and wheat are grown most, but also maize, hemp and some cotton. A mou is sown with 2 tcheraks and yields io tcheraks in a good year or $6-7$ on the average. One owner of 40 mou had 40 oxen and 3 asses as his cattle. On another area of 50 mou there were I horse, 6 oxen, 4 asses and 17 sheep. Produce is disposed of at Yangi Hissar and some grain is sold. Cotton is grown, but is only spun for domestic use.

The road from Kök Rabat goes almost due south. To the east large uncultivated fields are visible at a short distance, to the west a slight chain of mountains running parallel to the road. Except for very short stretches of sand on low eminences you ride all the time through a cultivated oasis. After $6-7$ miles the road turns east and goes on in the same direction with a slight tendency towards the NE as far as the town.

About $7 \mathrm{I} / 2$ miles from Kök Rabat lies the village of Rabatch. Here a large expanse of cultivated land begins, reclaimed at the time when the Yarkand district was administered by the son of the last re-conqueror of Kashgaria, the Chinese general Ljo Konj Thin. The area of the cultivated land must be about $20 \times 40 \mathrm{li}$. The vegetation appears to be good. At the 8th or 9 th mile large uncultivated sand-fields extend along the south side of the road on which some poor grass grows. At the 12 th or 13 th mile the road crosses a small river, Zara Su , after which for some miles it follows a large waterway, Chant ariq, with several flourmills. - At the 16 th mile you come to the village of Qara Qum, where the land was first cultivated about io years ago. The water has been led a distance of about ito li from a river, Teja darya (?). For every mon the population is bound to give a day's work to maintaining the irrigation system. Those who were able to till the fields by themselves, have become the owners of their land. Those who required help from the authorities, have been granted a lease of the land. In both cases the payment of taxes or rent only began in the seventh year at a rate of $2 \mathrm{I} / 2 \mathrm{djin}$ per mon. A mon is sown here with 2 I/2 dins and yields an average crop of 60 djins, in the best years 150 . From this place I drove in a cart through a lovely and fertile district with a great many arias and rivers

In Yarkand I called on the Swedish missionary, Gustaf Raquette. Thanks to his profound knowledge of the country and people to whom he has devoted his life, I obtained an insight into many things that I might otherwise not have noticed. In addition to his missionary work he is very busy practising as a doctor, studying the Turki language and doing research work. During this winter he hopes to complete a Turki grammar in English and should then be able to devote more time to preparing a big dictionary. - In the mission there is a well-equipped dispensary, where the local people can obtain medicine at very low prices, a good collection of instruments and a free bed for poor patients. At present a school is being started for $4^{\circ}$ pupils, where besides general tuition in reading, writing, arithmetic, geography and a little natural science the pupils will be able to learn their Mohammedan prayers under the guidance of a mullah - excellent testimony to the toleration exercised by the Swedish mission. The object of their work is evidently not to be able to boast of so and so many converts from Islam, but to develop the people, so that they can make their own choice between different religions. The mission quarters are far more modest than the two missions in Kashgar, but pleasant and charming, to a great extent, no doubt, thanks to Mrs Raquette's ability and devotion. - Venereal diseases are far and away the most prevalent. Owing to faulty treatment, or rather for want of any kind of treatment, they occur in a very severe form. Among infectious diseases smallpox and typhus are common, especially the former. But the population seldom applies for treatment. A deformity that is so widespread here that it can scarcely be called an illness, but rather a normal occurrence, is goitre. It develops the most astonishing size and forms. It is ascribed to the influence of the water and nothing is done to obviate this „blemish». It is a joke among the people of Yarkand that you cannot be a true Varkandlik unless you possess a respectable goitre.


Two old men carting millstones.

October 18th. To-day I went to the bazaar with Mr Raquette and was able to see something rarkand. of the town. A description of one Sart town fits them all. Life and movement are concentrated in the covered-in bazaar streets, merchants sitting on either side of them on a common clay terrace that runs along the street, each in front of his own shop, or rather of his stock, reminiscent in size and arrangement of our market booths. They are all situated in long, low clay buildings running along the street. When they are closed, some boards are placed vertically in front of them. The bazaar in Yarkand seemed to me to be infinitely more animated than in Kashgar. The place was seething with people, and if a Sart in the uniform of the police force of the District Commander had not cleared a way for us with shouts and blows, we should have had great difficulty in moving. Our uniformed protector was soon joined by an enthusiastic amateur and finally the force increased to 3 men. Yelling and pushing people about evidently gave them great pleasure and no one appeared to mind or even be surprised. We walked along the bazaar street which led us from the Sart town into Chinese Yarkand or Yarchang, as the Chinese call the town. There we visited a couple of Chinese temples. Next to one of them there is a huge poplar, partly grown into the wall. The Chinese consider it a sacred tree and assert that it is 500 years old. In the evenings a worshipper praying at the foot of the tree can have his prayers and questions answered. Whoever dares to strikes the tree drops dead, a just retribution for his temerity.

The cattle bazaar is held in a small open space outside the wall of the Sart town. A minor Chinese official sits in a mud house surrounded by a railing and provided with a Chinese signboard and receives the tax for selling cattle. A little further on, by the wall, coarse straw carpets are sold. A walk along the town wall takes you out of the yelling crowd, and you can enjoy the beautiful, though unnecessarily dusty view. Yarkand and its surroundings are far more beautiful than the towns I have visited so far. Green fields and shady trees surround the town, climbing over the uneven country up to the very wall. This wall, near which so many battles were fought during the constant wars that raged for centuries in Kashgaria, has now been abandoned to its fate and is gradually falling

to pieces. Each part of the wall that collapses, to mingle with the dust on the ground, could tell the present generation of shopkeepers some incident from the uncommonly bloody history of their country with its deceit, treason, murder and indescribable barbarity. Its semi-ruined condition considerably enhances the picturesqueness of the surroundings of the town.

Russian and British trade seem to be waging a severe battle for supremity in Yarkand. Russia has cheaper transport in her favour, but India has the advantage of being the only supplier of certain goods that are sufficiently valuable to justify the high cost of transport. According to the calculations of the Russian aksakal about 1,500 horses with goods to a value of about 500 roubles per horse reach Yarkand from India over Le annually, while 2,500 horses at 200 roubles per horse come from Turkestan over Kashgar. The cost of transport per horse from India amounts to about 30 roubles, from Turkestan to $12-17$ roubles. In recent years the imports from India have increased annually by about 200 horses and the cost of transport has been brought down from $50-60$ roubles to about 30 roubles per horse.

Wholesale trade is done in the yards of the sarais, where, according to local conditions, comparatively large stocks are collected. Here, indeed, a colourful picture is presented by merchants from Turkestan, from the different towns of Kashgaria, Afghanistan and India with their varying fine types and bright national costumes. The trade of each country has its own regular sarais more or less, but when business is in full swing you see the most amazingly contrasted types in the same yard. I lived in a large brick sarai, the only one in the town built of baked bricks. My men and I occupied three small, dark cubicles, the faint light coming through the door and a window above it half screened by a thick wooden grill. A stove of sorts, that could not be closed but luckily did not smoke, enabled us to be


> An inmate of the almshouse at Yarkand with a goitre characteristic of the local inhabitants.

more comfortable as we could light a fire and reduce the dampness in the room, and some coloured carpets, spread on the floor by our host, made the room look more oriental. The yard was large and all round it there were many similar cubicles. The centre was occupied by a large brick terrace, underneath which was a large cellar for goods with a window in the roof, screened by flower-pots. These flowers and two tree-like plants with red flowers in pots made the yard appear well kept. Most of the merchants here deal in Russian goods. They spend the day in their stores, but for the night they repair to their quarters in the town. A pleasant old Afghan of sixty kept his valuable stock of corals (up to 300 roubles a piece), brocades, silks and velvets from India opposite my room. He was very talkative and not disinclined to boast, especially of the independence and warlike deeds of his country.

It is the mrosam just now, the Mohammedans' month of fasting. They eat only when it is so dark that you cannot distinguish whether a thread hanging from the ceiling is black or white and until it grows light again, so that you can see the difference in colour. It is a picturesque sight in the dusk, when the bearded old men with their venerable appearance and wearing spotless white turbans say their prayers and make their obeisances in long rows on rugs spread among the flowers on the terrace. As soon as darkness sets in they eat greedily, babbling their prayers again from time to time in a singsong voice in various corners of the yard. Do they think of the meaning of their beautiful Mohammedan prayers or is it merely an outward form in which the main thing is to make their obeisances with wonderful theatrical precision? Their first prayer is as follows: "In the name of God the merciful, the charitable! Praise be to God, the Master of the world! We adore Thee, we cry to Thee for help. Lead us on the right way, the way of those to whom Thou hast been merciful, on whom Thy wrath resteth not, and who do not go astray. Amen!,

My host, a Sart Beg in official dress, in his house at Yarkand.


There are large almshouses in the town maintained by the Chinese authorities. They October 2 consist of long mud buildings like barracks, divided by long, narrow passages. The build- Yarkand ings are divided into small cubicles with doors opening on to the passage-like street. With their clay stoves and floors they are just like the rooms in one of the caravanserais you find on the road between Kashgar and Yarkand. The passages are kept swept and clean. The almshouses contain 130 rooms and house 284 inmates, who fix themselves up as they wish, in groups of friends, married couples or singly. Every inmate is entitled to $4^{0}$ djins of maize monthly from the Chinese authorities, but owing to the greed of the minor officials and false weights they do not get more than 36 djins. Every winter a pair of trousers and a coat, both padded, are distributed to every inmate. Nothing is done for the care of the sick and among about 20 inmates I saw a woman whose face had been half eaten away by leprosy in a horrible manner. Married couples count as one person, nor do their children receive any assistance. The inmates are entirely free to do as they please. Some work at handicrafts, but the majority spend their days begging in the streets or from house to house.

Yesterday we were invited to dine with the Governor of the district, Pyn ta yen, who October 2 bears the title of "Fuguan» here. I say "we", meaning Mr Raquette and myself, for I have larkand grown so accustomed to seeing him several times a day. In Raquette's comfortable Russian ponycarriage we drove to the "yamen", the mandarin's official residence. All these manda-

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rings' houses are built in similar style. Passing through two outer courtyards, the first being protected from evil spirits by a massive clay wall in front of the gateway, you come to a platform of boards with three painted walls of boards and a roof. The ordinary entrance is from the side behind this platform, but for persons of rank and foreigners the back wall is opened. The platform serves as a courtroom, when the Fuguan tries cases that will bear publicity, for the people are allowed into this courtyard. Private sessions are held in the colonnade of the inner courtyard. The insignia of his rank are placed along the side walls. Crossing this platform you pass through another wall of boards into a rectangular courtyard, at the end of which there is a one-storeyed building with wing-like projections and some wooden columns that support the roof connecting the wings. The house itself is quite small. Lesser gates, in the shape of a rectangle standing on one corner, or round, lead through either side wall of the courtyard into other courts of the space occupied by the yamen's different buildings, surrounded by a common mud wall. In the vestibule formed bet ween the building in the background and the wings, guests are received by the mandarin, who comes to meet them in full official array and adapting his pace so that he reaches the column at the door of the wing where they are received, at the very moment when they enter the last courtyard. His dress consists of a round, black felt hat, the brim of which is turned up almost to the height of the crown, surmounted by a coloured stone or a ball of glass or metal according to his rank, and with a fringe of red silk cords dependent from it over the crown of the hat and a peacock's feather protruding at the back and fastened to the crown by a tube of jade or some other frequently valuable stone. The hat, which has a black silk cord fastened under the chin close to the neck, is worn on the back of the head, the forehead being left uncovered. Over a black Chinese garment reaching to below the knees, with a turned-down collar of light blue velvet and silken cuffs of the same colour, is worn a garment richly errbroidered in gold on the chest and of rectangular shaped back, with a design of a stork, a lion, a dragon, or a snake according to the rank of the mandarin. A long necklace of carved brown wooden beads, with a coloured stone or bead here and there, is worn round the neck. Europeans are usually welcomed, at any rate here near the frontier, by a slight shake of both hands. The Chinese greet each other with a graceful curtsey, performed with one leg behind the other, the fingers of the right hand touching the floor. All this is accompanied by one of the smiles in which the Chinese excel. Guests are then escorted into one of the rooms in the wing. These reception rooms in a mandarin's official residence are mostly furnished in similar style. In front of one of the windows a tall, rectangular, polished mahogany table is placed facing an almost square divan, across which its occupant is expected to lie with his head to the wall. Above the divan there are some vases, a mirror or a clock on a shelf along the wall. One of the longer walls is usually occupied by a smaller four-cornered table with an armchair on either side with straight and stiff arms and a back of turned mahogany bars and with red cushions. The opposite wall is not furnished as a rule, but is decorated with Chinese mottoes inscribed on narrow, oblong paper rolls in memory of various episodes in the life of the mandarin or of his family. Such rolls also decorate the other walls of the room, if there is a sufficient quantity of them.

In the middle of the room into which we were shown stood a round table laid with a white cloth and five covers. Each cover consisted of two very small china bowls, one containing a sharp brown sauce, the other crushed nuts in sugared water, a small ornamented four-cornered tin plate with a deep spoon of the same metal lying on it and two ivory sticks. Two of the covers also had a dessert plate each, a knife and two forks, the one European, of iron, the other Chinese, of tin, with two long prongs. The meal usually begins with tea, sweets and fruit, followed by a kind of hors d'oeuvres served upon 12 small plates or in miniature china bowls on feet placed in the form of a square in the centre of the table with an empty space in the middle. The contents of the bowls, served in minute pieces, are tasted in turn, each bowl from which you eat being placed in turn on the empty spot in the centre of the table, after which the bowls remain as a table decoration. The series of dishes starts with swallows' nests, sharks' fins or some other delicacy that is placed in a tin bowl in the space between the other bowls. If the host wishes to show special favour, he helps one of the guests, even on the other side of the broad table, with his two ivory chopsticks, which he handles with surprising skill. This is by no means easy, seeing that most of the dishes are very flabby, often being slippery and oily sharks' fins or sea-snails cut into long, narrow strips. Sometimes the host's dexterity is so great that he will carve, or rather divide, a duck boiled in water or a piece of pork floating in gravy; with his chopsticks. The dishes succeed each other in surprising numbers. A series of 24 dishes floating in gravy is followed by an equally long procession of dishes all roasted in dripping, after which comes a succession of small patties with different kinds of filling and so on. Once or twice during a long dinner there is an interval, the table being cleared of all the bowls, whereupon operations begin all over again. The dinner ends with 12 bowls being set upon the table again in a square with a large bowl of soup-like broth in the middle. A bowl of dry boiled rice is placed before each guest and he can add the broth to suit his taste and flavour it with the contents of the bowls. Judging by the energetic slobbering that ensues and the delight with which the diners pounce upon the contents of the bowls, notwithstanding the dinner they have just devoured, this must be an especially popular Chinese dish or rather the usual Chinese dinner. As soon as the bowls have been emptied, the guests depart immediately. The dishes are served up with good taste and are more remarkable for their artistic appearance than for their flavour. Europeans, who live here, tell me that you get accustomed to this kind of food and can even train yourself to enjoy a Chinese dinner. At first many of the dishes seem repulsive. The sameness in the taste, in particular, is wearisome. Everything has the same flavour of steam and fat. The waiting is exemplary. Dish follows dish without a moment's delay and all are the exact temperature that they should be. A group of ministering spirits surrounds the table, and if the host or a neighbour does not see to it that your plate or wineglass is never empty, there is always an attentive servant at hand. The liquor that is drunk, apart from European wine with which the mandarin often regales a foreigner, is potato spirit, frequently highly spiced, served hot and pleasanter to smell than to taste. If European liquors are served you may be condemned to drink brandy, some horribly sweet liqueur or else warm champagne or other wine all through dinner. From time to time you are handed a towel, wrung out in hot


> Sarts and Chinese
> imprisoned for various crimes, chained hand and foot to healy logs and iron bars and with a board round their necks.

water, with which to wipe the sweat from your face. The food is heavy and difficult to digest. It is alleged that in choosing such eccentric dishes the sensual Chinese are mainly inspired by the wish to increase their virility.

The mandarin Pyn is a man of $45-50$ of intelligent and pleasant appearance. As all mandarins do, he carries politeness to excess, but is more a man of the world than most of those I have met. Like almost the whole administration of Kashgaria he comes from Khunnan. He escorted us to our carriage with great courtesy and a salute of three guns was fired as we stepped on to the platform of boards that I have described.

I had some difficulty in selecting a suitable present for him in exchange for a sheep and some maize, rice and hay that he had sent me with his card on my arrival, and as a token of gratitude for the soldier who had so kindly been posted at my gate, possibly as much to keep an eye on me as out of politeness. Hesitating between imitation brooches, cheap mirrors, small musical boxes etc., I decided on two copies of Motussovsky's map of China and a magnifying glass. The old man seemed pleased and said it was something that could not be bought for any money. He showed me a Chinese atlas, evidently a copy of a European one, but very imperfect.

October 2gth. The mandarin returned my call yesterday and found my room and the sarai with its Yarkand. arguing and shouting Sart merchants so wanting in comfort that he ordered his people to find better quarters for me at once. To-day I moved to the house of a Sart Beg, a kind of local administrative functionary. His house is in a quiet part of the town and is very pleasant with its latticed woodwork and its overgrown garden, shaded by creepers. I have been given an oblong room with two windows on to the garden, unfortunately very dark owing to the close wooden grating, and an opening in the ceiling. It is cold and damp in spite of a multitude of beautiful many-coloured carpets of local make. Ljo and my new


Chinese teacher, a rascal of 23 , demoralised by opium smoking, occupy a large room with decorative pillars next to mine. The kitchen, the rest of the menn a thed horses are a little further off. - My efforts to induce the mandarin to discuss politics during his call proved vain. The principal reason, I believe, was my interpreter's complete lack of education and poor ability to understand Russian. The mandarin said that the old Chinese laws were not suitable to present conditions, but required revision. The people needed education and schools above all things. Ancient Chinese culture should not be forgotten, but should be studied principally, and a thorough knowledge of Chinese acquired. At the same time, however, all that was useful among other nations should be learnt. All should be united and labour to the same end. - He complained of the amount of work he had to do, as in Kashgaria the mandarin had to attend to everything. Irrigation in particular claimed a great deal of attention. There is not sufficient water for irrigating fresh areas. The latter lie higher than the land that is irrigated at present, which increases the difficulty of cultivating more land. - He receives a newspaper from Peiping five times a month, but appears to be more engrossed in local matters than in great political problems.

An attack of rheumatism will keep me out of the saddle for some time, so, not to retard my journey, I purchased, not without difficulty, a good arbah from the interior of China (those made here would hardly stand the long journey), and secured harness and a Chinese driver, who is now training a pair of my horses to pull a cart. This two-wheeled vehicle with it s enormously heavy wheels provided with thick iron nails, with a team of two horses and the driver mostly walking alongside will be a somewhat medieval way of travelling, but no slower than travelling with pack horses.

The Chinese Government has in many respects, one might say almost entirely, retained the former administrative organisation of the country. The Sart population of each place


Sarts and Chinese
imprisoned for various
crimes, chained hand and
foot to heary logs and iron
bars and with a board
round their necks.
water, with which to wipe the sweat from your face. The food is heavy and difficult to digest. It is alleged that in choosing such eccentric dishes the sensual Chinese are mainly inspired by the wish to increase their virility.

The mandarin Pyn is a man of $45-50$ of intelligent and pleasant appearance. As all mandarins do, he carries politeness to excess, but is more a man of the world than most of those I have met. Like almost the whole administration of Kashgaria he comes from Khunnan. He escorted us to our carriage with great courtesy and a salute of three guns was fired as we stepped on to the plat form of boards that I have described.

I had some difficulty in selecting a suitable present for him in exchange for a sheep and some maize, rice and hay that he had sent me with his card on my arrival, and as a token of gratitude for the soldier who had so kindly been posted at my gate, possibly as much to keep an eye on me as out of politeness. Hesitating between imitation brooches, cheap mirrors, small musical boxes etc., I decided on two copies of Motussovsky's map of China and a magnifying glass. The old man seemed pleased and said it was something that could not be bought for any money. He showed me a Chinese atlas, evidently a copy of a European one, but very imperfect.

The mandarin returned my call yesterday and found my room and the sarai with its arguing and shouting Sart merchants so wanting in comfort that he ordered his people to find better quarters for me at once. To-day I moved to the house of a Sart Beg, a kind of local administrative functionary. His house is in a quiet part of the town and is very pleasant with its latticed woodwork and its overgrown garden, shaded by creepers. I have been given an oblong room with two windows on to the garden, unfortunately very dark owing to the close wooden grating, and an opening in the ceiling. It is cold and damp in spite of a multitude of beautiful many-coloured carpets of local make. Ljo and my new


Chinese teacher, a rascal of 23 , demoralised by opium smoking, occupy a large room with decorative pillars next to mine. The kitchen, the rest of the menn a thed horses are a little further off. - My efforts to induce the mandarin to discuss politics during his call proved vain. The principal reason, I believe, was my interpreter's complete lack of education and poor ability to understand Russian. The mandarin said that the old Chinese laws were not suitable to present conditions, but required revision. The people needed education and schools above all things. Ancient Chinese culture should not be forgotten, but should be studied principally, and a thorough knowledge of Chinese acquired. At the same time, however, all that was useful among other nations should be learnt. All should be united and labour to the same end. - He complained of the amount of work he had to do, as in Kashgaria the mandarin had to attend to everything. Irrigation in particular claimed a great deal of attention. There is not sufficient water for irrigating fresh areas. The latter lie higher than the land that is irrigated at present, which increases the difficulty of cultivating more land. - He receives a newspaper from Peiping five times a month, but appears to be more engrossed in local matters than in great political problems.

An attack of rheumatism will keep me out of the saddle for some time, so, not to retard my journcy, I purchased, not without difficulty, a good arbah from the interior of China (hose made here would hardly stand the long journey), and secured harness and a Chinese driver, who is now training a pair of my horses to pull a cart. This two-wheeled vehicle with its enormously heavy wheels provided with thick iron nails, with a team of two horses and the driver mostly walking alongside will be a somewhat medieval way of travelling, but no slower than travelling with pack horses.

The Chinese Government has in many respects, one might say almost entirely, retained the former administrative organisation of the country. The Sart population of each place


An old Chinese temple at Yarkand.
is governed by one or more »Begs», all of whom are Sars, who deal with all matters in their own language and even write their reports to the mandarin in Turki. Their official dress, which is that of a minor Chinese official, and the obligatory knowledge of the Chinese language are the sole indication that they are the executives of Chinese administration. According to the size of his district, or more correctly according to its population, a Beg has more or fewer nyuzbashi» under him. These, in turn, are the superiors of a larger or smaller number of "unbashi», to whom the supervision of a few dozen houses (usually not more than 50 or 60 ) is entrusted. The Begs and Yuzbashi are appointed by the governor of the district, the Unbashi by the nearest Beg. Disputes of minor importance and petty crimes are settled by a mullah. The mullah hears the case, examines witnesses and tries to effect a settlement on the basis of material compensation to the injured party according to the gravity of the crime. If this proves unsuccessful, the case is referred to the Beg, who examines it afresh with some of the oldest inhabitants (not less than three). These are chosen by the litigants or by the Beg. If the proposal for a compromise is accepted by the litigants, it is submitted in important cases, especially in places close to the mandarin's residence, to the latter and is only put into effect after obtaining his personal approval. These compromises consist almost invariably of material compensation, much consideralion being given to the social standing of the parties etc., though other forms of punishment, such as corporal punishment, are also applied. If the proposal does not meet with the mandarin's approval, he either orders a new compromise to be formulated or the submission of the case to the Kadi's court or to his own decision. The same procedure is adopted, if the compromise is not accepted by one of the contending parties. The Kadi's court consists of the four most highly respected mullahs of the place, appointed by the mandarin, and has to decide the case in accordance with the Koran. In the event of disputes

between Chinese and Sarts, if the mandarin himself does not wish to interfere, the compromise is drawn up by a Beg and a "Siang jaon, corresponding to the Beg of the Sarts among the Chinese population.

In the country districts the Beg also keeps a register of taxpayers and of the taxes collected. The latter are collected in the course of a couple of weeks at a date fixed by the mandarin, usually the completion of getting in the harvest. The principal burden of taxation is borne by the land-owning class. When the country was reconquered after Yaqub Beg, all tilled land was divided into three categories and this division sill forms the basis for calculating the extent of taxation. For i mou 3 djins of grain and 1 djin of straw are paid in the first category. The grain is paid in that kind of grain that was grown at the time the land was divided, and for cotton growing the tax is calculated in maize. Wood may be demanded instead of straw, 1 djin of wood being equal to 2 djins of straw. Generally, in fixing the extent of taxation, it seems to have been assumed that the taxes should amount to 10 per cent of the crop. For flourmills $3 \mathrm{I} / 2,2 \mathrm{I} / 2$ and I I/2 lan are paid annually for every pair of millstones according to the category to which the mill belongs. Owners of house property in the towns pay no tax, but for some commercial transactions a so-called bazaar tax is levied in the towns, amounting to 32 copper coins per lan, or in other words 8 per cent. Starting from the principle that goods brought from other places have already paid a tax on being sold there and that all foreign goods are exempt from taxation, it is really the local output on which this burden is imposed. In Yarkand certain kinds of goods are on the free list, such as flour, grain, bread (ready baked), spirits, fruit, clay vessels, wooden vessels, caps and possibly some other goods. Some of these taxes, especially the very considerable tax on the sale of cattle, are collected by the mandarin's men in the cattle bazaar, others are farmed out to men who purchase the right of collecting taxes.


Camblers in a churchyard at rarkand. The woman is holding the iron bur, to which her husband is chained.

The right of collecting the bazaar tax on some goods in all the towns of Kashgaria has been sold to four men, who have to pay a certain sum for this annually to the Taotai in Kashgar. The imposition of the bazaar tax on certain goods or their exemption from it seems, however, to depend to a great extent on the discretion of the local mandarins. In Yarkand, for instance, in the time of the present mandarin's predecessor not only all foodstuffs, but horses, cattle and cuen hens were liable to taxation. The manner of collecting the taxes also seems to give plenty of scope for extortion on the part of the mandarins and minor officials. In measuring the grain tax too large a measure is employed, which even has a special technical designation and is equal to $7 / 5$ of the correct measure in Yarkand. It is all the dearer for the population, when the grain tax is collected in silver under all kinds of pretexts, as the price of grain is fixed arbitrarily by the mandarin. As an illustration of the scale on which such abuse of power is exercised, I can mention that the local mandarin, who is generally respected for his kindness and humanity, adopts the principle of fixing the price of grain at double the price paid in the bazaar. His predecessor never allowed it to pass cheaper than at treble the price. The procedure is very simple. For half the amount of the taxes collected the mandarin buys up the grain in the bazaar that has to be provided in the local Government stores for feeding the Chinese troops and assisting the population in case of famine; the rest of the money is not subject to any control. It is scarcely necessary to add that this only refers in very broad lines to a minor instance of the extortions of which the often most ingenious mandarins are guilty.

As a Chinese official post can only be attained by sacrificing large sums of money and its occupant only retains it for three years, when large amounts have again to be expended for a new post, the chief cause of such corruption as exists everywhere, at any rate in this part of the Celestial Empire, is not far to seek. As salaries are disproportionately low and are non-existent for some posts, we find another mainspring for this system of extortion.


To indicate the size of salaries I can mention the following: the Taotai in Kasthgar receives 3,000 lan annually and 700 lan for his yamen (living quarters, chancellery etc. with a numerous staff); the Titai in Yangi-Shahr 3,800 lan and 700 for travelling expenses; the Shaitai in Kashgar (a colonel with an independent command of infantry and cavalry joo lan in salary and 600 for travelling; the District Commander in the large Yarkand district which extends to the frontiers of Russia, Afghanistan and India and embraces Karghalik and Guma, receives a salary of 800 lan and 700 for his yamen. If we go outside the hierarchy, we come to a sanguan (company commander) who has 25 lan as his monthly salary and 8 lan for his company and a sanguan bambanj (subaltern) with 8 lan and 5 then (copper coins) a month. All the lower guardians of local government receive no pay, but live on their districts. Most of the numerous staff employed in the mandarin's yamen receive either no pay or an absolutely ridiculous pay, and yet all these posts are so sought after that comparatively large amounts are paid for them. The Turki interpreters employed by a mandarin are among the most important people of the place and are certainly not among those who cost the population least.

Not long ago Yarkand was visited by a young mandarin who was sent by the Dzian Dziun in Urumchi to inspect the 8 towns of Kashgaria. He was expected for three days, which caused the local mandarins a good deal of inconsenience, as they are bound to meet him outside the town with a military escort. The inspection was said to be duc to a complaint lodged by 9 Sarts in the Kashgar district in connection with the mandarin's actions. In evidence of how impossible it was for people to live under the existing conditions it was pointed out that many Sarts had taken refuge by becoming Russian subjects. Here, at all events, the inspector's investigation seems to have been extremely superficial. The only place he visited was the school in the yamen, where he made the children read Chinese
words and distributed generous tips. He was present, too, for a short time at some manoeuvres carried out by the local troops of the district, composed of Sarts! It is asserted that from the Fuguan alone he received 18 "yämbom" ${ }^{1}$ and an embroidered garment worth 900 lan, but such statements cannot profess to be exact. Nevertheless, this characteristic visit is an illustration of the official customs here and proves how difficult it is for the population to seek the protection of the law. The complaint will probably merely result in providing the inspecting mandarin with a few tens of thousands of roubles of which, if things go as they should, he will have to hand over half to the Dzian Dziun himself The expense to which the local mandarins are put by such a visit is a sound investment, if they are not niggardly, for a good report from the inspector secures them a new post or prolongs their time in their present post. In any case there is no need to worry about them. They are sure to see to it that any such additional expenditure is amply covered by the taxpayers.

The exception proves the rule. The trips made by these Chinese inspectors (olyen) invested with wide powers are not invariably devoid of results. Sometimes, the people say, they come disguised as merchants or in some other disguise and, after having secretly studied the conditions and injustice on the spot for a few days, allow their imposing caravan of elegant arbahs to arrive. The mandarins who receive them find to their horror that the leading arbah contains, not the inspector, but one of his servants and realise that the position is serious and can scarcely be rectified by the payment of even very considerable sums. After such an inspection a few years ago, it is said, nine mandarins whose business instincts had carried them too far, were dismissed. But if they perform their duties with a certain amount of circumspection and within the limits of the unwritten law or tradition, they have nothing much to fear, for the conviction that such extortion is legal is deeply rooted not only among the officials, but even among the population.

According to Chinese law or custom an official cannot occupy the same post for more than three years. This is, no doubt, one of the main reasons, why they take so little trouble to increase the prosperity of the taxpayers. In Kashgaria, where so much could be done, a mandarin such as the former governer of Yarkand constitutes a brilliant exception. By means of extensive irrigation he increased the tilled area of the oasis by no less than 800,000 mou which were either rented by the poorer classes who were unable to cultivate their fields by themselves or were transferred with full rights of ownership to those who ploughed and sowed their fields without the help of the Chinese authorities. The representatives of the Chinese Government do not appear to display any activity in this direction in any district here.

November 1gth. Gambling flourishes here to an incredible extent. You see gambling groups at every Yarkand. corner, in every courtyard and lane. From the mandarins, all of whom seem to be addicted to the excitement of gambling, down to the prisoners chained to enormously heavy iron

[^2]bars and wooden beams or beggars in tatters, everyone shares this noble passion. When I visited the principal Chinese temple in the town yesterday morning at half-past nine, a large gambling table was set up in front of the entrance, covered with a white cloth, down the middle of which there was a long, narrow red rug. At one end sat a small, pockmarked Chinese with the face of a bandit and kept the bank while two small dice were thrown in a Chinese porcelain cup. The most diverse company that the town could muster was gathered round the table. The principal players sat on benches at the table, but behind them stood a dense crowd of lesser lights, and judging by the energy with which they elbowed each other in order to place their stakes on the table, they were not the least keen players. Three smart Chinese performed the responsible duties of markers. An open wooden box like a pencil-case with two parallel grooves enabled them, by stacking a roll of copper or silver in one groove equal to the stakes in the other, to pay the winners without wasting time in counting the stakes. It was evidently hard for them to resist the impulse to remove one or two coins at the last moment from the roll they paid out. Those who staked on red won on the odd numbers, while white represented the even numbers. - At a short distance from this table, organised according to all the rules of the game, gambling went on with no less enthusiasm on the dusty ground. The players sat or lay in a circle, surrounded by interested spectators. In some of these circles dice were being thrown, in others simply four bone chips. - In a neighbouring churchyard about a dozen convicts with their heavy wooden collars, $3 / 4$ of a metre square, their iron bars etc., tried their luck against some ragamuffins, and even in the outer courtyard of the yamen some prisoners killed time in the same way. There are professional gamblers in every country, but here it is a generally recognised occupation. Dr Raquette often has patients who state their profession to be gambling.

A call that I had long been intending to pay the highest military mandarin of the place, the Shaitai, gave me an opportunity of seeing a wonderful specimen of the extraordinary caste of warriors that China has produced and has hitherto considered herself rich enough to maintain. This was a deaf old man of 70 , quite uneducated and devoid of any military ideas other than the traditional, fantastic military methods of the Chinese in the field. Of the army organisation and military art of all countries the old man considered the Chinese the best. A Chinese detachment is quite invincible in the field and can resist any forces. He had himself with 800 men put 12 or 15,000 Tartars (Dungans?) to flight 30 years ago at Kan Su , for which he had been awarded his high rank. His main interest, however, is apparently not to study military history or train his troops, but, by keeping as few men as possible, to fill his pockets with the money granted for maintaining the rest. This small number of opium smokers and soldiers demoralised by other vices has also to help in supplementing his insufficient pay by working in the fields. Nowhere does the garrison make a more lamentable impression than in Yarkand, where the 150 men or so appear to be a regular gang of criminals, opium smokers, professional gamblers, usurers, owners of disreputable houses etc. Four officers on whom I called seemed to fit into the picture. No education, only physical strength, agility and dexterity in the use of weapons


Children outside the school in the yamen of the Fuguan of Yarkand.
seem to have secured them their rank. They gamble with their men and do not seem to be much superior to them. They said that they had rifles of a modern pattern for 7 and 12 cartridges and that the soldiers practised target shooting with them once a month.

A school for Sars boys is maintained in the governor's yamen and I visited it by permission of the mandarin. The lads looked healthy and pleasant and above all well washed, as they sat in fours in front of their small brown-painted tables, and learnt Chinese characters aloud. They were all dressed in black Chinese satin jackets with small metal buttons and round black skull-caps with the traditional plaited knob on the crown of the head. The masters were two young Carts in Chinese dress. The only serious subject is Chinese, writing and speaking, although they are also supposed to learn Turki. Tuition is free of charge and the time for completing the curriculum is indefinite. The boys can study Chinese characters for 16 years and still have enough left to learn to last for the rest of their lives, if not more, said one of the masters. The pupils I saw were mostly lads under the age of 10 , but one part of the school is said to be housed in the town, where there are alleged to be older pupils. The mandarin, who loves to spend his leisure in visiting the school, usually distributes generous tips and it is a whim of his to give the youngsters Chinese clothes. He said that he considered it unnecessary to waste time in school on other subjects than Chinese characters. Anyone who has learned them can study any subject he chooses on his own.

My farewell visit this morning to the courteous mandarin was not long, as I had such a number of things to attend to in the course of the day. He treated me to a large number of dainty cakes and a delicious jelly, the colour of milk, cut into small cubes and floating in warm water flavoured with almonds and sugar. With fatherly solicitude he enquired about my health, how I had succeeded in purchasing an arbah, whether I had bought mules etc. His amiability even went so far as to ask, if I did not require some money for continuing my journey. When I thanked him and laughingly declined his offer, he begged


Ljo repeatedly to tell me that I should by no means feel embarrassed, but should consider it a perfectly natural thing. These mandarins can really be extraordinarily kind and they often have very good manners.

Today at last I was able to get under way. A couple of days ago my camera got out of order. This accident forces me to make my expedition to Khotan without any chance of taking photographs except by time exposure and is the more disastrous since my spare camera is on its way north in one of the cases I sent there. To add to this trouble, Ljo wants to return to Russian Turkestan from Kashgar in order to go home to Manchuria by rail, and even if I should succeed in knocking these ideas out of his head, it will not be the same as before. A man who has to be persuaded is not the same as one who travels of his own accord. I cannot understand what is wrong with the fellow, but suppose I shall find out later.

We started this morning, as usual, after much delay and some trouble. The arbah that I had bought prolonged the preparations still more and I did not get off until 9 o'clock. The drive through the town in this vehicle, the axle of which was so long that it almost scraped the walls of the houses, was curious. The driver, walking alongside, had to keep a sharp lookout, and if we met another vehicle, there was often nothing for it but to turn into a yard or a sidestreet. However, once we were on the highroad, we got on splendidly with three horses pulling the arbah. We covered the distance of 8 Chinese paotai to Posgam in about $4 \mathrm{I} / 2$ hours. Unfortunately, it is impossible for me to estimate the distance in versts or kilometres, for the pace of the arbah is uneven and quite incalculable. The road is excellent and the bridges are all in good condition. After driving for about half-an-hour through the streets of the Sart town we came to open fields and could breathe the fresh and unpol-
luted air. The road took us south. After deviating slightly a couple of times to the SSE and SSW it proceeds in a southerly direction as far as Posgam. The neighbourhood south of Yarkand consists of fertile fields cut up into small rectangles surrounded by very low walls, so that for a certain part of the year they can be kept under water. Long rows of willows or poplars that intersect each other are planted along the edges of the fields, contributing very much to the beauty of the view, especially in the summer. Numbers of ariqs and small channels intersect the fields in different directions, often crossing the road. The bridges are made of round tree-trunks and are fit for all kinds of vehicles.

At noon we reached the wide bed of the river Yarkand darya. The water was so low at this season that it was unnecessary to use the four barges hauled up on to the bank, though their presence indicated that for a long time during the year it was impossible to ride across the river. The bed of the river consists of sand and boulders of different sizes. On the other side of the river-bed, about a mile and three-quarters wide at this place, the ground is sandy and the fields poor. Here and there you see white layers of salt.

We reachet Posgam, a large village, shortly before $2 \mathrm{p} . \mathrm{m}$. By the mandarin's orders rooms had been reserved for me in one of the numerous and large houses of the local government tax-collecting station. At about the same time as myself an old mandarin of 70 arrived on his way from his present district to the north to replace another, who had had to give up his post on the death of his mother. It is a strange law that a Chinese mandarin is relieved of his post for three years in the event of either of his parents dying. This custom is probably due to the important position occupied in the life of a Chinaman in all its phases by his parents. During my stay in Yarkand there was a feast one day with free entertainment for all who honoured the mandarin by a visit. Presents were brought from far and near and he himself distributed gratuities to people who came to congratulate him. The day was said to have cost him a couple of thousand lan, but it was unknown how much it brought in for him. It was the birthday of his aged mother that was celebrated in such a ceremonious manner.

November 2Ist. Karghalik.

The dressing down I gave my men for their slackness yesterday morning made them come and wake me at $3.30 \mathrm{a} . \mathrm{m}$., they themselves having been called by the cook at 12.30, as he thought it was morning. As a result I felt constrained to give them one of the two alarm clocks I had brought with me. But none of the four keys would fit one of them, while the other, which I was able to wind up, refused to go. If the remaining 15 are in as good a state, I can scarcely give them away as presents. One ought to be a sort of jack of all trades on a journey like this, watchmaker, manufacturer of cameras, doctor, armourer, optician and heaven knows what.

We started in good time to-day. The pack-horses were off at 7 and I followed in my arbah with Rakhimjanoff and Ljo at 8 . The road goes south all the time with very slight bends. It was as good as it was yesterday, though much dustier. There was far less water, so that we were spared the jolting bridges. About 45 metres from the town the road is intersected by a small river Bishkumistan that flows here from S to N from the Yarkand darya until it is lost in the Dsjengalock marsh or swamp. A viaduct and a bridge lead
across the river, both in satisfactory condition. The district is monotonous, the same character as yesterday after crossing the river. A great deal of sand and dust. Poor fields. In a couple of hours sand-dunes and uncultivated areas are reached. Here and there you still catch sight of a strip of field. A quarter of an hour later a wide expanse, overgrown with reeds and apparently marshy, begins on the right of the road. Another quarter of an hour and you are in the valley of the river Tiznaf. Crossing the numerous arms of the river presents no difficulty at this time of year without using a long series of bridges thrown across the river and connecting a line of sandy islands. This considerable construcion of bridges was made by the mandarin Wang Ping Fang in 1898 , as an inscription states. Thanks to it, traffic is not interrupted at any time of the year. The islands are artificial and are planted with trees to increase their resistance. They are long in shape, the pointed ends facing the course of the river. The road beyond the bridge was, if possible, even better than the one we had traversed. Deep ditches on either side and embankments in some places indicated that parts of it, too, were built not very long ago. The road runs along the Tiznaf valley for some distance. Very fertile fields appear again, only to give way in half-anhour to sand with occasional patches of field. At about 2 p.m. we reached Karghalik, having covered the 10 Chinese paotai at a comparatively rapid pace. The kindness of the mandarin was simply unbounded. Here, too, rooms were prepared for me by his orders. The local mandarin was apparently not going to be outdone - he had sent me two donkeys with fuel, two with hay, one with corn and a live sheep.

In passing a Mohammedan cemetery I witnessed an old Sart's efforts to exorcise the illness of a young one, who seemed to be paralysed in both legs. A small fire was lighted in front of the patient and the old man was trying, by waving some bits of wood round the head and body of the sick man, to drive out the evil spirit, after which he started reading from the Koran in a loud voice.

In the course of the day we met a couple of hundred asses laden with sheepskin, felt and carpets on the way from Khotan to Kashgar and about 20 with paper from Guma. The population here does not seem to differ in appearance from the Yarkandliks. There are goitres, too, though they display a tendency to be rarer and of smaller size. The dress of the women is bright in colour. Many do not trouble to veil their faces.

Karghalik is a small place without any town wall and consists of bazaar streets that seem interminable, when most of them are empty on the days when there is no bazaar. At the entrance to the town there is a large Chinese temple with three large, tidy, parallel courtyards. Like the majority of the temples in this part of the Empire, it is of no great age. The shops are poorly stocked, the goods being of local manufacture or Russian. The place seems to be sparsely populated and to exist chiefly for the one bazaar day in the week.

There is not much to be said of this day's journey. The road goes SE on leaving November the town, but soon turns $E$ and keeps on in the same direction with a slight inclination Kish Lan southward. As soon as you have passed the low walls that screen the view in the immediate vicinity of Karghalik, a large sandy plain unfolds itself, extending as far
as you can see. At a distance of about $3 \mathrm{I} / 2$ miles the monotony of the desert is broken by a narrow strip of forest that struggles stubbornly from the north in a SSW direction, battling with the drifting sand. Close to Karghalik you notice some faint attempts at irrigation and some patches of field, where the peasant, protected by his small earthen walls, seems to have made an effort to strive against churlish nature. But very soon even these attempts appear to have been abandoned. As long as the road led us through these fields, it was ditched and planted with trees that looked as though they were suffering from consumption. The soil consists of fine sand with a strong admixture of gravel in places. After plodding laboriusly through the sand for an hour and a half we came to the edge of a wood, the oasis of Beshariq, that we had seen in the distance. A few poor houses and tidy sandy fields protected from the drifting sand by the surrounding trees, and again nothing but sand, this time without a break. The land is flat with a slight occasional hillock of sand formed under the influence of the wind. Another weary progress of an hour and a half and we came once more to a very small oasis lying in the sand like an island. Five minutes' journey led us out of these trees into the ocean of sand again. At 2 p.m. we reached Kosh Langar, a large barracks-sarai in the desert, built of baked bricks and constructed, like the next one, by Niaz Hakim Beg, the Governor of Khotan in Yaqub Beg's time. Close to it is a small pond filled with water from an oasis, Bura (Bulaq su) about 8 paotai to the S or SSW . It contains about $\mathrm{I}_{50}$ houses.

Vovember 2 3rd. Our journey to-day was, if anything, more monotonous than yesterday. The road Tchvo lack goes all the time in a SE direction and is indicated by more or less elear tracks in

Langar. the sand, the paotai towers, sometimes half in ruins, and in a couple of places by a row of stakes driven into the ground. Numbers of carcases of horses and asses strewn along the road bear witness to the hard struggle these honest animals have to endure in such difficult country. For about an hour's drive at a walking pace the plain is even, the land apparently only rising in front of us in the direction from NNE to SSW. About 9 o'clock, on reaching this rise you enter ground that undulates in long, low hillocks. The road either leads over them or cuts a deep furrow through their sand. The soil consists of sand and gravel, more mixed with gravel than yesterday. A strong SW wind carried the dust and sand, obliterating the horizon, and made us feel cold. The road was hard on the arbah horses. By I p.m. we had covered the 7 paotai or more for the day and stopped in front of a spacious caravanserai, built on the same plan as the last one, but with an outer courtyard and having the inner one paved with flat flagstones. A valley from NNE to SSW was visible for some time before we reached our destination. The slope on its opposite side seemed to grow a few low bushes. To the south of the sarai the ground seemed to rise considerably and become hilly. In the valley below the sarai a large pond had been dug, surrounded by high mud walls. Next to it some patches of field had been ploughed and a few trees grew round them. A couple of miserable huts were occupied by the hardworking labourers and their few children. I went to have a look at these people, whose stubborn struggle with the niggardly desert deserved a better reward. Everything indicated extreme poverty. - The water in the pond comes from Kilian (?), a distance of

15 paotai to the SW. The pond is only filled in the spring, when the water comes down from the mountains. At both these sarais there is hay and corn for sale, though at fairly high prices. During the day we met about a dozen asses laden with raisins from the oasis of Guma.

The oasis of this name lies approximately halfway between Yarkand and Khotan.
Novem I had intended to rest here for a day, but the short daily marches necessitated by the use of the arbah in the deep sand, consumed so much time that I gave up the idea. (Pisan The journey to-day was practically a continuation of yesterday's throughout. The same desert, the same landscape, perhaps a litle more gravel and occasionally a few boulders. We travelled ESE, past plots of field, across the valley on to a large plain that looked like the bed of an old sea or river with its boulders. A line of hills was visible in front, extending from ENE to WSW. It turned to the east and for a time followed our road at a distance. Soon after, we crossed a narrow belt of tamarisk bushes extending $\mathbf{N}$ and $S$ as far as we could see. The road began to turn eastward more and more. At 10.45 , having travelled for $23 / 4$ hours at a walk, we came to a shed built of clay and surrounded by trees. Next to it stood the fourth paotai tower. The road makes a bend to the NE and immediately afterwards turns in an easterly direction and enters country densely strewn with sand-heaps covered with a very bushy plant. An hour later we came to another clay shed in the sand and at 1.30 we reached the edge of the oasis of Guma. Another half-hour's journey along a dusty road planted with trees that led us past houses more ramshackle in appearance than any I had seen in Kashgar, Yarkand or Karghalik, and we found ourselves in a bazaar street.

Guma, like Karghalik, has no wall, the emblem, according to Chinese ideas, of the privileges of a town. The bazaar alone seems to have attracted a number of houses, in which life pulsates only one day in the week. The bazaar streets appear to be far smaller than in Karghalik. Guma produces coarse paper sold at I copper coin for four sheets, a small quantity of silk which is sold in the form of thread, usually coloured, at $20-40$ pul per misqal, cotton mostly as raw material at ir. $60 \mathrm{c} .-2$ r. per tcherack ( 16 djins ), as cotton cloth (white) at 70 cop . for 10 arshins, a little wheat, maize, rice and raisins. Salt is brought from the desert and is sold in the bazaar at io cop. for a donkey's load. The manufacture of paper is very primitive. The bark of the mulberry tree is used as raw material. The inner bark is separated from the outer, which is thrown away, and is soaked for 24 hours in the river and then boiled for about an hour. The sticky pulp secured by this method is laid on a millstone and beaten with a wooden club until the fibres are separated and the pulp has become loose. The papermaker sits with bent knees beside a square hole in the ground filled with water. By his side is part of the pulp in a wooden cylinder, let into the ground. The pulp is diluted with water as required. The man places in the water-hole a mould of four narrow boards with a thin muslin-like cloth at the bottom. With a ladle made out of a mangold he takes a clot of the pulp and puts it in the mould floating before him and spreads it out in the water by whirling a small wooden cross, fastened to a handle, round in the water and pulp in the mould. Then the mould is taken
out of the water and allowed to dry for 24 hours. The product is, of course, a clotted, grey, coarse paper with long fibres, but as it has no competition to face, it has a good sale in the country. During the day we met many caravans of asses, about 140 with paper, sheepskin and principally raisins from Guma to Yarkand, and $20-30$ with silk thread, raisins, sheep's hides and carpets from Khotan to Kashgar.

November 25th.
Moji.

Although the 9 paotai we covered to-day were of no special interest, they were at any rate less monotonous than the journeys of the two previous days. One or two small oases, some irregularity in the ground and a certain amount of vegetation, though very modest, relieved the hopeless sand and gravel of the desert from time to time.

We left the anything but comfortable sarai at Guma at $7 \cdot 45 \mathrm{a} . \mathrm{m}$. The air was clear, but culd though the wind of the last few days had died down. In a few minutes we were outside the town and rolled along a sandy road between mulberry trees and poor plots of field to the SSE. Now and then the direction changed for a short turn eastward, but was resumed very soon and pursued as far as Moji. An hour's journey took us out of the oasis and on to an extensive plain with sand strongly mixed with gravel. To the E and SE it is encircled by a sparse and low-growing wood, to the SW and $W$ the skyline is clear. About io a.m. we reached a line of hillocks, beyond which the road led us into a hollow, obviously a river bed, on the opposite, steep side of which some houses and trees of poor growth were visible. Immediately beyond them the barren sand began again. Shortly before in we came to the little oasis of Chudda (?), beyond which the road crossed a large sandy plain, this time with some slight vegetation and with a pronounced undulation in the ground. Shortly before 2 we reached another oasis, rather larger than the last and bearing the same name (Chudda). Some carpets were spread in front of one of the houses in my honour and a group of old men collected to regale me with tea, hard boiled eggs, raisins and almonds. There are about 300 landowners in the oasis. The greatest magnate possesses 200 mou, the poorest only 2 . The crop depends on the quantity of water in the mountains, from which a river supplies fresh water. $2 \mathrm{I} / 2$ to 3 tcheracks are sown per mou and the population is pleased with a crop of no tcheracks per mou. A little grain and cotton are sold.

We had another 2 paotai to cover before we got to Moji, a small village in an oasis of the same name. The cook and the pack-horses arrived a good while before us. The soup was bubbling over the fire and rooms had been prepared for me and my men in a very tidy and comfortable caravanserai belonging to the Government. I was given a splendid room with a large paper window. Rugs had been spread on the floor and a padded blanket hung over the draughty door. My travelling stove was put up in a few moments. It consisted of a sack with a hole, surrounded by a piece of sheet-iron, for the chimney and was suspended in front of the open fire; a fire was lighted and I began to feel quite warm. During the day my suite had grown by the addition of a merchant from Samarkand, who was travelling with his son to Khotan in order to give him a chance of seeing the world, and a divani, a curious fellow, who amused us by his antics. He walked through the deep sand, keeping abreast of our horses on this stretch of road, which was by no means short.

A beggar in full dress at Sima.


When we came to a better part of the road and proceeded at a trot, he trotted too, carrying his two bundles over his shoulder at the end of a stick. He cither sang or chattered loudly, gesticulating and grimacing, or played on a large shell, or else he rested from the exertions of the road by turning somersaults, evidence of a good physique.

In the desert of Guma we met the mandarin of the district, who was returning from the southern part of his territory, where a murder had been committed, an occurrence that has always to be personally investigated by the mandarin according to Chinese law. He had stopped with his small following in the sand and was despatching some documents, sealing them with his official seal without which a mandarin never travels. I stopped my arbah, got out and thanked him for the hospitality I had received even in his absence. Not only hay, maize and wood had been sent me from the yamen, but even a cow to milk. True, it had no milk, but the polite gesture had been made (possibly my men were unable to milk it, for all cows in Asia are difficult to milk). The mandarin and a thin man of slightly over 30 with lively features made many courteous remarks, to which I replied as well as I could. He begged me to spend some time in Guma on my way back, which I shall certainly avoid doing. His kindness still continued, for even here, where the best rooms were placed at my disposal, fodder and wood were brought as gifts from the mandarin. - On the road we met about 40 asses with wool and sheepskin from Khotan to Kashgar and 35 asses with silk thread, made of remnants of silk, carpets and cotton cloth from Khotan to Yarkand.

November 26th Zanguya. To-day we experienced our first cold night. At $6.30 \mathrm{a} . \mathrm{m}$. the thermometer indicated Zanguya. perature.

Our journey to-day was in a SE and ESE direction. A ravine zigzagging deeply through the sand, as if cut by the rain, leads from Moji on to a plain of fine sand with some signs of vegetation, though very poor. The ground is not so level as during the last few days. In some places it undulates, in others the sand is piled up in mounds and hillocks, occasionally very fantastic in shape. There are long stretches strewn with knolls or mounds. After proceeding for about three hours we passed a lonely farm in the desert and just beyond it we came to a line of long, low hillocks of very irregular shape. Evidently under the influence of the wind, the sand had taken on curious shapes here, like ruins. The road cuts across this stretch of hillocks almost at right angles. Beyond it all vegetation ceases, but only for a short time, for in a little over an hour we reached the oasis of Zanguya, where we stopped at a Chinese sarai. A few hours later Tung ling Tang arrived with his family on his way from Khotan to Yangi-Shahr, where he had been appointed to the command of the Tsung jin. He called on me and told me a good deal of news. The newly appointed Dzian Dziun in the province of Sin fuan, who was formerly Dzian Dziun in Ili, had forced through the decision to build a railway to Urumchi. He had not arrived yet. Zanguya is an oasis of $4-500$ houses. The cattle seem fairly strong and the houses possibly less poverty-stricken than usual.

November 27th. Having bidden farewell to the Chinese colonel and his nine arbahs, some of them as Pialma. large as houses, we started this morning at $8 \mathrm{a} . \mathrm{m}$. Two more horses had been hired, one to replace my pack-horse that was galled, the other as a fourth to pull the arbah, as this day's journey was considered heavy going on account of the sand. The road leading out of the oasis of Zanguya is rather beautiful, broad and straight between two rows of poplars and mulberry trees. Our pleasure did not last, however, for very soon an immense plain stretched before us. The sand is very fine and the ground in some places goes in waves with ridges between, like yesterday, though it is often quite level. The ground rises in some places on the horizon. Here and there you see thin, low bushes creeping up the sandy ridges. The direction is almost invariably ESE, for a short time due E. About halfway the sand has a strong admixture of gravel, nearer to the oasis of Pialma the gravel disappears more and more. After about two-thirds of the way we came to Hodsja langar a more than unpretentious shelter of clay. Soon after, the edge of the Pialma wood appeared on the horizon and at about 3.30 we reached a very tumbledown, though large sarai. During the day we met about 40 asses, all laden with raisins from Khotan, 30 en route for Karghalik and ro for Kashgar.

November 28th. This day's journey was the longest of the whole journey from Yarkand to Khotan
Zawa. and the greater part of its 12 paotai proceeded over a plain of deep, fine sand. The time of starting was fixed for 6 a.m. for the pack-horses and $7 \mathrm{a} . \mathrm{m}$. for my arbah.

The oasis of Pialma is not large. All vegetation ceases when you have driven for about

40 minutes at a walking pace and you enter a very large plain with fairly firm sandy ground to begin with. We travelled SE. The morning was chilly and there was a kind of haze in the air that curtailed the view extremely. I could only distinguish the outlines of a high chain of mountains very indistinctly to the south. To the east I thought I saw the outlines of a small oasis. The road soon turns and proceeds in a more easterly direction (ESE) in which it continues on the whole during the entire journey. The plain goes in soft, long waves or hills and slopes. The sand, fairly firm at first, becomes looser by degrees and the journey harder for the horses. A few miles from Pialma at Tashtavarlik we crossed a gully with a gradual slope up and down and at Aq langar a similar one. At the fifth paotai we passed a wretched clay shelter and barely half-an-hour later a solitary house. At the seventh paotai there was a sarai of baked bricks, Aq langar. Between the ninth and tenth paotai the traveller encounters a cloud of tame doves. Slightly to the left of the road lies the Imam Shakir's tomb, decorated with staves, yaks' tails, horns, skulls, hides etc. in large numbers. Quite close to it is a large clay building, erected for the sole purpose of housing the doves and their keepers. Almost everyone who passes carries a small supply of corn for the beautiful occupants of the dovecote, who always fly a good distance to meet the traveller. The legend says that they are descended from a pair of doves that sprang from the heart of the Imam Shakir Padshah, who was killed here in a bloody battle against the infidel »Buddhists» in Khotan. The battle had been bloody and the losses on both sides so heavy that it was impossible to distinguish the corpses of the faithful from those of the infidels. However, a higher power distinguished them and the doves came and pointed out the corpses of the fallen true believers. In memory of this deed the population supports this dovecote by its voluntary contributions.

Shortly before reaching this spot the sand becomes very fine-grained and, under the influence of the wind, has formed high dunes over which, or rather through which (as the wheels sank so deep into the sand), the horses had great difficulty in dragging my arbah. About one paotai further on the dunes sink and you cross a damp place with a little standing water. Vegetation reappears and you roll along a good road to the boundary of the oasis of Khotan.

On the edge of the oasis I was met by a Sart in Chinese official garb, who welcomed me with tea. Here the traveller's papers are examined (except Chinese who are allowed to travel without a passport) and a register of arrivals is kept. If the documents are not in order, entrance to the oasis is prohibited. I was not required to produce any papers, however, and the honest official mounted his horse and accompanied me to Zawa, where I spent the night in a very neat and comfortable Chinese sarai. Zawa is not a village, but a bazaar street for the surrounding district. - My cook's none too reliable health does not seem able to endure the hardships of a journey. He complains of feeling ill. It will be an irreparable loss if he has to be replaced, as all of us are spoilt by his delicious and nourishing soups. - During the day we met about 50 asses with sheepskin and felt and about a dozen with silk thread, raisins and sheepskin from Khotan to Yarkand.

November 29th. It is with a strong feeling of something that is certainly not regret that I enter the name Khotan. of the goal of this journey at last in the margin of my diary. My illness in Yarkand made me doubt seriously whether I should ever reach Khotan. Now that I have accomplished this and am feeling well again, my spirits are beginning to revive, and my head is full of plans.

The journey to-day was full of changing views. We started half-an-hour later than usual. This time it was I who slept so soundly that the despairing tinkling of my little alarm clock could not wake me to life. I had had a bad night owing to a slight mishap. When I lay down, my sleeping bag seemed to smell peculiarly of smoke. Without troubling to investigate, as I knew that I had not smoked or had a light close to it, I lay down and fell aslecp, well satisfied with a new combination of my overcoat and fur coat to protect me from the cold night. I awoke, half choked by smoke. Reluctantly I stuck my head out of the bag and was astonished to see some points of light glowing in the corner, where my stove was standing. Two towels, hung up to dry during the night, were already burnt, ignited by the sack that had begun to smoulder; too large a fire had been made for the night. All that was left of the sack were a few glowing embers. There was nothing for it but to crawl out of the warmth, throw water on the sack and air the room, already cold. By the time I had finished a good time had passed and so I overslept myself.

From Zawa the road crosses a small river Jana flowing just east of the bazaar from S to N . There is a good bridge and plenty of trees for repairs, if necessary. The eastern bank is fairly high and in some places steep. On the top of the bank there are several houses, rather prosperous judging from the outside, between which the road runs. Direction SE , in some places E ; ground slightly broken, though no hills worth mentioning. The soil is sandy, but there are tilled fields everywhere on either side. Numbers of ariqs, dry at present, indicate a plentiful supply of water. After proceeding for about $2 \mathrm{I} / 2$ hours we crossed an untilled spot with much gravel, probably the old bed of a river. Two rows of trees on either side of the road indicated, however, that it was not filled with water nowadays. On the other side, at a slight distance, we came to a bazaar and village, Qaraqash, and immediately beyond we crossed a narrow river, Barjan su. Half the road was covered with ice, a sign that there was no shortage of water. Ten minutes later we came to the bed of the river Qaraqash, at least $2 / 3$ of a mile wide here and covered with boulders. At this season it is dry, but deep furrows indicate that at some seasons of the year it is impossible to ford it. In March, April and May it is said to be navigable only in barges, three large enough to carry arbahs without unharnessing the horses being visible near the road. On the opposite side the village of Chatak begins. There we passed a pretty Chinese house built for welcoming mandarins on their arrival or for speeding those who were departing. In official China everything is foreseen and regulated. A short distance from here there is another narrow river. After about four hours' journey we entered the Borazan district and drove through the Dusham bazaar. Soon we reached another deep, but this time narrow river bed, Iliak. For a time the road ran between two mud walls, but soon open fields were again visible. About 1.30 p.m. we reached the wall of the Chinese town. It was a bazaar day here and the street we passed along was crowded. The inquisitive crowd pressed round the arbah at the risk of getting crushed under its massive wheels.

Tchao rained blows with his whip to right and left, but curiosity forced the people to disregard him. The axle of the wheels was so broad that it almost grazed the booths. Providentially we arrived safely at the house of the Beg Roz i Pish, placed at my disposal by order of the mandarin, who had already been advised of my arrival. I was welcomed by Badsuddin Khan and Abdul Khan, Mr Macartney's local agents. I was given a splendid lareje room with beautiful carpets and two windows overlooking a garden; my men and norses were also very well provided for. Soon the Russian aksakal turned up to place himself at my disposal. A little later two soldiers appeared, sent by the mandarin to watch over my person and safety. Courtesy in the East is truly remarkable. One man clears out of his house, another sits in a vestibule all day on the chance of being able to render a service etc. During my drive along the bazaar street I met the mandarin driving in a small trap. His elegant equipage was drawn by a mule and preceded by two soldiers in red and a couple of horsemen, one of whom carried an open red sunshade; with the mandarin's plump, typically Chinese face looking out of the vehicle, the whole impression was that this was a scene from a play, and a very pleasing one too.

I spent the day in attending to social duties, beginning with a call on the mandarin, a charming Chinese of 32 . His pleasant and elegant manners are accompanied by a rather amusing, though agreeable appearance. He seemed to be fond of listening to jokes. While he was being brought up in Eastern China and lived there he had opportunities of seeing motor cars and riding a bicycle and seemed to be generally acquainted with European progress, at any rate in some spheres of technical development. - A visit to the highest military mandarin of the place gave me a chance of seeing an even more pitiful representative of the Chinese army than the Shaitai in Yarkand. Physically a complete wreck and mentally a child - that describes in a nutshell this recently appointed military chicf of Khotan. - After a hurried meal, before which I again had a call from the local representatives of the European powers, the Russian and Indian aksakals, I paid calls on them and a couple of the leading merchants. I was regaled everywhere; in one house with a sheep roasted on a spit, in another with a "pälaw" and so forth. This made the day rather a trying one. The Russian aksakal received me in a coat of red velvet with green velvet lapels over which he wore a »khalat" with gold facings, the gift of the former Russian consul in Kashgar, Petrovsky. His house is as bright and variegated as his loud costume. However, he seems quite wideawake - apparently keeps his eyes open and knows what is happening in this district.

I am devoting a day or two to the sights in the vicinity of Khotan and am at present on the ancient site of the town. No ruins are visible, but over a large area between the villages of Khalche in the west and Gazun-üstang in the east many remains have been excavated, indicating that at some far distant time the area was densely populated. The remains consist chiefly of bones, fragments of glass and clay vessels, terracotta ornaments, old coins, glass and stone decorations, fragments of images of Buddha, gold either in the form of dust or small bits of ornaments etc. The Lasku-üstang flows through the area


The mandarin in Khotan.
and on its banks, as well as along the banks of the ariqs leading from it, there are masses of piecemeal relics and broken clay vessels etc. Not only the inhabitants of Yotkan, but others, too, carry on systematic excavations here in the hope of finding enough gold to cover the expense and leave a small profit. The objects found and sold to foreigners are regarded as a subsidiary source of income. The search is conducted mostly by washing and it is for this purpose that the water is led to the place or places, where the excavations are being made. A plot is bought by one of the villagers and is searched for several years; then it is ploughed and becomes tilled land. The finds are at a depth of about $2-2 \mathrm{I} / 2$ fathoms (14-17 I/2 feet) from the surface. In the sections I was able to observe, this stratum is distinguished by its dark colour from the other strata, which resemble löss. On the fairly extensive areas where investigations have been made, the level has sunk to the humus stratum referred to, which causes the whole ground to present an uneven surface where differences in level occur without any kind of sequence. The fact that no remains of dwellings have been discovered is, no doubt, explained by the circumstance that the unbaked bricks that formed and still form the only building material of this district, do not possess sufficient powers of resistance to survive in a damp soil. In Takla Makan, however, where whole towns and villages have been buried under a layer of sand, as dry as dust, this defective building material has been preserved for centuries. It is surprising that no old trees are visible anywhere, except at Hezret Alame's mazar, where there are a few, the respectable dimensions of whose trunks give evidence of their great age. This mazar lies quite close to the village of Yotkan. The quantity of objects sacrificed to make the forest of staves and sticks that embellish the tomb, indicate that Hezret Alame's memory is highly revered by the population. In times long gone by he was hanged by the infidels and in memory of him the large area in which Yotkan is included, is called Borozan (boroz $=$ to hang).

## Badsuddin Khan, the former

Indian aksakal of Khotan.


The road from the town to Yotkan runs eastward and winds between houses, tilled fields and ariqs, most of which are dry at this season. In reality you do not follow any road once you have left the highroad to Yarkand shortly beyond the town wall. A ride of a couple of hours over fields and ariqs brings you to the place where Khotan stood in olden times. The way leads through densely populated and cultivated districts.

The Yuzbashi, who had been informed of my impending visit in order that he should collect some sellers of finds, met me on the bank of the Lasku-üstang. He showed me over the places, where excavations had recently been made. The banks of the üstang were thickly strewn with bits of clay vessels, and in places where the humus stratum had been dug up, many pieces of bone and bits of clay vessels protruded. In one or two places a few spadefuls were turned up, but the sole result was to expose some bones or bits of clay. The greater part of the population works its land itself, but there are capitalists, too, who work a larger area with hired labour. The owner of the land receives $3 / 4$ and the labourers $1 / 4$ of the objects found. It seems improbable that the finds are of any great value, at any rate the population does not mention any very valuable discoveries.

About a dozen Sarts awaited my arrival at the Yuzbashi's. They carried some objects of the kind I have described concealed in their sashes, under their khalats, in their sleeves or in other strange places. With few exceptions they were mere fragments. Any discoveries of value had, no doubt, already been secured by the well-known archaeologist Dr Stein, who had visited this locality a couple of months before me. It was only after they had foisted all kinds of rubbish on me, which I bought for want of anything better, that objects in a better state of preservation were produced. I secured the best ones as I was preparing to mount my horse and leave the village. This resulted in my buying practically all that could be had. With the help of Badsuddin Khan, the former Indian aksakal of Khotan, to whom Mr Macartney had kindly given me a letter, the prices were beaten down considerably.

An object for which 5 roubles were asked, fetched $50-60$ cop. and so on. - There were no ntäskirs" to be had. The Japanese, who had been here a couple of years ago, and other foreign travellers had bought up many of these interesting old documents and year by year it is becoming more and more difficult to find anything of value.

December fth. This morning, just before I left Yotkan, I came across a couple of ancient objects Sipsia village. discovered during the excavations. Our route lay NW, but soon changed to SW. After proceeding for about three-quarters of an hour at a walk from the Yuzbashi's house, we passed a mazar with the tomb of the Imam Zainul Aldin who fell and was buried, so the people say, in pre-Mohammedan times. At a short distance from it are the tombs of Seed Mahullanah Mufii and Bova Sambar in a large cemetery called Somija, where the rich Buddhist temple Sa-mo-joh described by the famous Chinese pilgrim Hinen-Tsiang is supposed to have stood. The road leads through a very densely populated district. Houses are visible everywhere, fertile fields cut up into very small plots and ariqs that intersect each other. After a ride of not quite three hours we came to the river Qaraqash. On its bank we passed a mazar with Kodja Kuntu's tomb erected on the spot where he died in fighting the infidels. The bed of the river, strewn with boulders and quite one-third of a mile broad, was dry excepting for a furrow, about 14 feet wide, along which the water rushed. On the opposite (western) bank we came to a large village, Udsjat, next to which there was a sandy mound with a celebrated and greatly reverenced mazar. Dsjelaludin's tomb lies at the foot of the mound and his brother Kodji Baghdad is buried at the top. Both these heroes came from Baghdad to fight the unbelieving Tshokta rashit and Nokia rasht tribes. The sandy mound forms a very extensive terrace. A little to the SSE a heap of poles and trophies indicates the place, where Sheidan is interred. To the S and SSW the sand terrace changes into a line of hills that seem to extend to the foot of a chain of mountains rising about 1 - $1 / 2$ miles $S S W$ and $W$ of the mledsja», half surrounding it. This little chain of mountains is an outpost of the mighty Qaranghutagh mountains, the imposing heights of which are clearly visible in spite of the hazy light and are a great relief from the flat landscape that I have traversed for such a long time. The opposite bank of the Qaraqash is formed by a steep sandy eminence. On its crown the mazer with the tomb of Kodja Kakhmeri is visible.

When we arrived at the Yuzbashi's house dinner was almost ready, a pleasant surprise as I had grown accustomed to the slow methods of my former cook. I took a couple of photographs of the people who, according to the conviction prevalent in the district, are said to be descended from the Tshokta rashit and Nokta rashit tribes I have referred to. After resting for a couple of hours we started eastward again across the river bed and up the opposite high bank to Jamada. The road led almost due east across a large, almost entirely barren sandy plain, where the inhabitants quarry salt at the very surface of the ground. The greater part of the salt is grey and is refined by boiling. The sediment that forms at the bottom during the boiling is thrown away, the clear water being retained and used instead of our grain salt. A ride of an hour and a half at a walking pace took us across this plain and into a village, Jumna (Friday) bazaar. On the western edge of the
village there is a celebrated mazer, or rather two, where Nuzai Kazem (one of Mohamed's closest descendants) is buried with all his soldiers. Some sandheaps to the north of the soldiers' mazar are pointed out as the ruins of the fortress where they perished. Another hour's ride and we came to the village of Sipsia, where the Yuzbashi's house had already been prepared for me by order of the Beg in the town. On the slope between the two latter villages a knotty bush grows profusely, leafless at this time of the year. It is called tehegan and the superstitious population says that it only grows in places, where much human blood has flowed. Sipsia is a village of about 300 houses, surrounded by fertile fields. About 8 inhabitants, 5 sheep, 2 donkeys, 2 cows and 1 horse can be reckoned per household. With 1 tcherack of seed per mow 10,8 and 5 tcheracks are harvested on land of the 1 st , and and $3^{\text {rd }}$ category respectively. About 4 cwt of manure are used per mon.

A ride of an hour and a half at a walking pace to the ESE of Sipsia took me to a plain of sand and gravel enclosed on the S and SW by high hills. In its northern part the sand seemed to have been piled up by the wind into strange shapes resembling ruins. This seems to be the place, where the town of Jati once stood. A small stream called Juzi üstang flows from SE to NW past its remains. Excavations that have been made and are still made here, have revealed objects of about the same kind as those found at Yotkan, though the finds here are smaller and fewer in number. Part of the ruins have already made way for fields and it looks as though the newly tilled land would gradually extend over the whole of the ruined area. To the north of these sandheaps and quite close to them the village of Jumada begins on the bank of the Iltshi darya, traversed from S to N by the aria Jusalla üstang, with plenty of water. We stopped here for dinner, but principally in order to try and secure some old "täskir". My success yesterday in the Juma bazaar, where I found a stäskir» of what is, perhaps, the most respected old mazar of the Khotan district, gave me the idea of searching particularly for old wtäskirs". After much persuasion and coaxing, chiefly conducted by Badsuddin Khan and his nephew, we induced the mullah to part with a stäskir» of Hazmat Sultan's tomb in Khotan.

Samada is a long village, but with worse land than the villages I have seen so far. The number of houses does not exceed 100 and the average crop per mon is 7 and 5 tcherasks respectively (and and 3 rd category). It took us quite half-an-hour to ride through the village along the Iltshi darya, an arm of the Yurung-Qash, that flows further west than the latter. It can scarcely be called a village, for each house stands by itself surrounded by its fields. The connecting point of such a colony is the bazaar, usually named after a day of the week, ie., the day on which the bazaar is held. Our road led us from Samada in a NE direction over the Iltshi darya and immediately afterwards over the wide bed of the Yurung-Qash, paved with stones worn round. In a short time we came to a large and rich village, Yurung-Qash, with the Thar Shante (Wednesday) bazaar. Badsuddin Khan arranged for me to have a yigit from the Beg of the district and we then went on in the same direction. In about three-quarters of an hour we reached the very considerable area of the Tamaghil settlement. The fields are well tilled and fertile, there are many mulberry trees and the houses look fairly prosperous. The children we saw on the
village roads seemed livelier and noisier than usual among the Sarts, but the adults rather gloomy and melancholy with a shy and evasive look. We had reached the end of this day's journey, the settlement of the Abdal tribe in the vicinity of Khotan, a curious tribe of beggars that seems to play a part among the Mohammedans rather reminiscent of the position of the Jews among Christian nations. Driven out of their country in consequence of the death of the Imam Hussein and scattered in small colonies in various parts of the Moslem countries, they are pursued by the curse of the Imam Hussein and are forced to go in for begging as their occupation. Both rich and poor have to sling a beggar's bag over their shoulders for a certain time every year and wander about the country begging for alms. You meet them everywhere, carrying a beggar's staff, some in rags, others well dressed and wearing ornaments of some value, rings, necklets, brooches etc. The sight of Abdals as beggars is so common that many people make the mistake of calling beggars Abdals. They seldom admit that they belong to this tribe and seem to consider the name Abdal an insult. When questioned, they say they belong to the Tamaghil tribe, for instance, i.e., they give the name of the Abdal village from which they come. They do not appear to be liked by the Sarts, partly because of the religious difference that arose through Hussein's death (the Abdals are said to celebrate the day on which the Mohammedans mourn Hussein's death as a feast-day), and partly because their beggars are accused of various tricks for inducing the superstitious Sarts to give them what they want.

In one of the village streets we came upon a group of the more highly respected inhabitants of the settlement. A tall, stout Abdal with a long beard and a frank and genial countenance proved to be their Yuzbashi and undertook to accompany us to their mullah, whom I was anxious to see in the hope of securing some interesting old documents. On the way he called to the men he met that they should come to the mullah's and soon we had quite a crowd gathered there. The mullah, a man of 35 or 40 , as dark as a gypsy, with an expressive and animated face, received us with the hospitality characteristic of the population of the whole of this country. Fresh wheaten bread, grapes slightly shrivelled by the cold, raisins, nuts and tea were forced on us at once. After much hesitation the mullah entrusted me with two large volumes, unfortunately copies.

We arranged that I should spend the night at the Yuzbashi's, so as to have an opportunity of photographing some Abdal types and visiting Kumat, where the jade stone is found for which Khotan is famous. Accompanied by the mullah and a large crowd we repaired to the Yuzbashi's after sending a yigit into the town to fetch a pack-horse with the most necessary things that I had sent straight back to the town from Samada. In addition to the younger mullah the senior mullah of the colony, a man of 60 with a wasted countenance, came to the Yuzbashi's ntomasha». Except when answering the questions I put through Badsuddin's nephew, he sat by the fire with closed eyes, shaking his head slowly, as though all that went on round him did not affect him at all. When I begged him after some desultory conversation to tell me the history of his people as he had heard it told, he was lost in thought for some time with closed eyes and then recounted roughly the following - almost without a break and with some heat, accompanying his tale with gestures.

About 1300 years ago they left the town of Kufa in Turkey after a war between themselves under the leadership of Jazit and the Imam Hussein and his followers. Jazit's father was Hadji Mahavie, the son of Umie, the son of Abdul Manoff, the son of Bini Hashim, the son of the Prophet. Jazit and his followers won the war by diverting the water in the river Furat (Euphrates?), so that Hussein and his warriors ( 72 men -40 horsemen and 32 on foot) perished. The seat of war was the district of Kärbele. However, an Emir, Abamislim, arose and resolved to avenge Hussein's death and succeeded with the help of his numerous followers in driving out not only Jazit from Sham, where he dwelt, but also all his people from the towns in which they lived. Forced to fly, they went eastward and spread in small groups in different places. A small part of the people is believed to have remained in the town of Askale in Turkey. Groups of these people settled in Khiva, Merv, Iraz (India), Mosul (India), Hamadan (Persia) and near some towns in Chinese Turkestan. In the neighbourhood of Khotan they inhabit the village of Giwus close to the town and the village of Tamaghil near the village of Yurung-Qash. The latter village is named after the name of the Tamaghil tribe. In Yarkand they inhabit the Gaobakh street and in the vicinity of the town the village of Kheirambagh. In the Kashgar district they occupy the village of Painap close to the Khan ariq. Near Tcheria there is a village bearing the name of Oka. - When the old man had finished his tale, he closed his eyes again and sat lost in thought until a little later he requested permission to withdraw. The rest of the fairly large company evidently felt in duty bound to spend a good part of the night with me in the Yuzbashi's draughty room. Two musicians with a dutar and a tambourine had been ordered in my honour and entertained me with songs and music. The music was very pleasant, some of the tunes, especially one Afghan melody, being very charming, but their singing was a good deal more difficult to swallow and I had to exercise all my diplomacy to induce them to stop without hurting their feelings. What a strange evening with a dozen beggars seated on the floor round a plentiful dastarkhan in front of a roaring fire, listening to two bearded, swarthy Abdals singing songs full of melancholy and lamentation in hoarse, cracked voices! It was very late by the time we had the place to ourselves and could turn in. I did not have a good night, being constantly disturbed by people passing through the room.

Tamaghil, originally consisting of 7 houses, now boasts 77 with an average of 5 people each. Altogether the population owns 3417 mou of good plough-land. Besides agriculture and begging, the weaving of carpets and sacks is carried on.

The "täskirs" I had already acquired tempted me to extend my proposed visit to Kumat as far as the village of Hangui and try to find "täskirs" of the mazar containing Divana Khan Khodjam's tomb. A little over half-an-hour's ride at a walk eastward took us across the well tilled fields of the beggar tribe. For half-an-hour we rode through a cultivated area along the bank of an ariq. To the south, almost parallel to our direction, there is a line of sandhills that turns into an enormous sandy plain to the north. From the edge of the tilled fields, as far as you can see, there are large heaps of sand, gravel and stones, as if the plain were inhabited by gigantic rodents. A mile or two off a little
village is visible in the midst of these sandheaps. With the exception of a Chinese temple built with some care, the village is composed of wretched mud hovels that seem doubly miserable in these depressing surroundings. The population consists of a few hundred searchers for jade (nephrite) stone. About a hundred are employers, mostly Chinese, the rest are workmen recruited almost exclusively from among the Sarts. The search is conducted by digging a pit in the sand. At a depth of $11 / 2-2$ fathoms a layer of boulders is encountered, below which jade stones are found at various depths. The pits are seldom more than 3 or 4 fathoms deep. The finds are very irregular. Few men have been able to earn a fortune, but many have lost all they possessed and from being employers have become labourers or collectors of fuel in the form of asses' dung. I was told that there was a former mandarin among the searchers, who had lived here since the work was begun about 15 years ago and had lost all he possessed. Unfortunately I had no opportunity of meeting this interesting representative of the higher classes in this remote corner of the globe. He had gone to Lop to ask an inspecting mandarin, who was passing, for his fare to Peiping. My informant was unable to say how often he had executed the same manoeuvre and yet remained in this gloomy place, where opium and the hope of securing a fortune keeps these deplorable gamblers.

From Kumat we proceeded due east through the sandy desert to Hangui. The road at first led along a small river, Qarasu, that flows about one-third of a mile south of Kumat from W to E for about a mile, when it makes a sharp turn to the north and is lost among the sandheaps. Immediately afterwards we came to a larger river, Hangui üstang, which supplies the Hangui district with water from the Yurung-Qash. We passed a couple of modest langars. On the other side of the Hangui üstang trees are visible and the fields of the Khotan oasis; on the left of our road lies the immense Takla Makan sea of sand, forming a rise here and there with soft outlines. In I hour 40 min . we reached the fields of the village of Hangui and 20 min . later the bazaar street. Badsuddin Khan guided us to the comfortable house of his friend the Beg, where the son of the host gave us a hearty welcome. An excellent fire, hot tea, grapes and fresh bread were served at once and we settled ourselves contentedly on bright carpets and thick blankets, to await the mullahs and their »täskirs». The Friday service delayed them, but after waiting for rather a long time I was pleased to see two venerable mullahs come in. As usual they made out that there were no "täskirs» to be had, but the arguments of Badsuddin Khan's nephew must have been convincing, for after a time the elder mullah sent one mäskir".

It was almost dark by the time we returned to the hospitable hut of the Yuzbashi in Tamaghil, where dinner had long been awaiting us. We started on the return journey to Khotan in the dusk of the evening after four pleasant days. - Hangui is a village of 260 houses with about 10 head of cattle each. The land is fertile and well cultivated.

## December 8th.

Khotan. It is no easy task to calculate the population, tilled area, stock of cattle and other statistical and economic data, as the Chinese authorities keep secret all statistical information, on which one could base an estimate. However, it may be taken as a basis

## KHOTAN

Khotan lies in a plain on the river of Qarasu, at least 250 fathoms wide. The river bed is deep and has steep banks. In front of the W gate there is a crowd of buildings, closely packed in front of the gate and in scattered groups further off. In front of the $\mathbf{N}$ gate is a smaller collection of houses. That part of the dwellings of the Sart population which fills the space between the Sart and Chinese towns, extends to the E wall. - The wall of unbaked bricks. The parapet crenellated and of baked bricks with loopholes, 4 fathoms high. The gates are single without projections to protect them. The centre tower has 4 gates of baked bricks and is 22 feet square. The distance between the towers is 94 feet. The ramparts 8 fathoms wide. The parapte in front of the protected passage outside the ramparts is of clay, in bad conditio, $n$ about 4 fathoms high and without loopholes. The fosse is 12 fathoms wide, deep, badly kept. No open space; trees and scattered houses everywhere. The distance from the N wall to the bend in the ravine about 165 m , from the S wall to the bend of the ravine eastward about 260 m . The intermediate towers are 12 fathoms wide. - In the SW corner of the fortress an infantry in with clay walls. Yamen likewise. Bazaar street from W to $E$. Water is collected by means of an ariq from the $E$ in a pond near the infantry in. Grain stores about 8o,000 poods. - Drawn by the author.

that the Khotan oasis and Lob are divided into if Beg districts. Each Beg has 20 Yuzbashis on an average, who administer an average of $200-300$ houses. If we calculate 6 inhabitants and io mou of tilled land per house, we obtain a result of 680,000 mou. These figures are approximately double those given by Korniloff, but I doubt whether they are in reality very much exaggerated. A Yuzbashi should really administer soo houses, but the majority have far more. - The livestock can probably be calculated at about i horse, 1 - 2 cows, $2-3$ asses and 5 sheep per house, or about to beasts per house. - The land is divided into three categories giving an average crop of 10,8 and 5 tcheraks per mou for 1 tcherak of seed. The quantity of manure seems to vary considerably according to the proximity of the field to dwelling centres, highroads etc. Efforts are made to secure not less than 160 i 80 poods per mou, but in more distant parts the peasants are content with considerably less. Besides animal dung, the waste from oil manufacture, fruit kernels, flax and other waste, walls of old buildings, the upper layers of roads etc. are employed. All the fields are very small and are flooded for 2 or 3 days in the year. The crops seem to depend entirely on this opportunity of flooding. The agricultural implements are of the most primitive kind. A wooden plough is used with a single short metal blade which is poked into the top-soil. The soil is loose earth or sand. - The rotation of the crops is approximately as follows: I of wheat, I of maize, I of wheat or rice and so on. No fallow land. Winter wheat in very small proportions. Before the winter sowings the land is given not more than a couple of months' rest. Lucerne is used exclusively as grass. It is not included in the rotation of crops. Once it is sown, it retains its growing power for 16 years and yields 4 crops an-


The Indian aksakal of Khotan with Afghan merchants.
nually. The lucerne fields are usually fertilised every year. After ${ }_{5} 5$ or 16 years the lucerne fields are ploughed up and planted with fruit, and are turned into lucerne fields again a year later. - The cattle are poor and badly cared for. The horses are lean and almost always bad-tempered. The best are not reared here, but come from Afghanistan, Kashgar, Asiatic Russia or Pole. The cows are small and lean and give very little milk. In milking, calves have to $b e$ used as a lure. If there is no live calf, a stuffed one is substituted, the cow licking and fondling it when it is brought for the milking. Asses are very common and render good service. You seldom see a Sort on foot, and as a horse is too dear to keep, asses are used generally. The sheep often look beautiful and plump. You see none but fat-tailed sheep. Hens are common, but the eggs that are sold are often uncommonly small. - Poverty and lack of land are general. It is hard to say whether it is possible to cultivate more land and this question would require a more prolonged stay than mine. The better informed men among the population seem to believe that there is not much land to be reclaimed and complain more of a shortage of water. About two years ago new land was ploughed in the district of Zawa on an area of about 13000 mon. It was intended for Chinese soldiers, but either they were not interested or suitable for the experiment, for the land had to be transferred to Sarts at 5,4 and 3 lan per mon respectively.

December roth. With two yigits, whom the mandarin insists on my taking with me, I start on the Khotan. return journey to-morrow. I have decided to ride along the road closer to the mountains via Duma and Sanju and let the arbah roll through the sandy deserts by the same road along which I came to Karghalik, where I expect to meet it. The unreliability of the driver forces me to send Ljo with the arbah. I have chosen this road in order to practise drawing maps.

Flattered by my request to be allowed to photograph him, the Ting Ling arranged a drill in my honour for which he dressed up in full array. Surrounded by his guard,

The Itug Ling "f Khota" with his leeo children and wome guards. His insignia of office are displayed on the table. The photograph wos taken in the Tung Ling', tent during doill in my honow.

ntchin ping", in full uniform, he had himedf photographed sitting in a tent with the insignia of his rank on a table by his side. The entire garrison, 3 officers and 10.4 men, shod in the square in front of the old man's tent with rifles (muzzle-loaders) and fised bayonets. It was a sight fit for the gods. Unfortunately, the light was very bad.

I had an opportunity of watching the infantrymen fighting an invisible enemy with long bamboo lances. Often jumping in a most comical manner, they fight as if for their lives, now attacking, then falling back, either in pairs or in rows of 8 . The blows are delivered with either hand, steadying the lance with the other hand. A kind of breaking front was also carried out by these groups of 8 men. Their march in Indian file was interrupted at a sign from the leader, who marched along a spiral-shaped track, describing a circle with the point of his long lance, and stopped, facing in the direction in which the: had been advancing.

I paid a short farewell visit to the agreeable mandarin to thank him once more for all his kindness and above all to take his photograph as a souvenir. He placed a hookah, some books and a horrible modern clock, which he preferred to a beautiful Chinese rase I had chosen, on a table by his side. Luckily, I got him to choose a typical straight armchair instead of a cane-bottom chair. Late in the afternoon both he and the Tung Ling returned my call and wished me a safe journey. It is a pity I cannot speak Chinese. With an imperfect interpreter, and even with a very good one, conversation is always stilted.

Khotan, described to me as the gayest town in Kashgaria, and the most interesting to forcigners, has not come up to my expectations. It seems poorer and worse built than Yarkand. On a bazaar day it swarms with people, like all the towns and villages of this country, but the shops, it seems to me, are not so well stocked as in Yarkand. Goods in


Silk wearing in Khotan.
which Khotan specialises, such as silks, carpets and felts, can be had in equally large or even larger quantities in Yarkand and Kashgar and at about the same prices. There are very fine sheepskin furs here, perhaps finer than in other towns, besides which a kind of very attractive yellow leather travelling bags are made here, "yagtan", with large brass handles for attaching a padlock. In shape they are very like the typical English fourcornered leather bags. I did not find any of the beautiful bronze articles for which Khotan is famed. Except a couple of antique basins and jugs, all I saw was rough and clumsy and was sold by weight. The colours of the modern Khotan carpets are less durable than in the old ones, but the designs are also often ugly. Accompanied by Badsuddin Khan or the Russian aksakal I went to see silk weavers, carpet makers, tanners, potters, felt colless, jade carvers, metal workers, hide and leather makers and other craftsmen. These trades are carried on everywhere on a small scale. A workshop employing 5 or 6 men is a rarity. As a rule not more than 3 or 4 people work together. There is practically no working capital; as soon as a thing is made, it is sold in the bazaar or to a dealer. Carpet patterns are woven from memory without any drawings, but you can order a carpet of any design you like without extra charge. I saw some carpets of very beautiful Chinese design being made to the mandarin's order. Wages are infinitesimal. The employer also contents himself with a very small profit. On the river Yurung-Qash a Russian subject has started an establishment for washing wool on a slightly larger scale than is usual. Another has leased or bought a piece of land on the same river with the object of starting a tannery. The recent Russo-Japanese war seems, however, to have postponed the accomplishment of this plan.

According to Badsuddin Khan's statement about 400 horses are imported annually from India with goods to a total value of about 125,000 roubles. Exports amount to about


220 horses with goods for about 50,000 roubles. The imports are approximately as follows: 50 horses with paint, 20 with patterned muslin, 10 with cloth for sashes, 10 with turban cloth, 50 with various small articles, 30 with velvet, 30 with drugs and chemicals, $15-20$ with sweets, 20 with tea, 10 with cloth and print, 5 with corals, 5 with dog's skin and 20 with leather.

Exports consist of $120-150$ horses with silken thread, not dyed, at 40 roubles per djin; $40-100$ horses with undyed felt at $22-40$ cop. per djin (the rise in the price of wool has reduced the exports of felt); 30 horses with goat's wool at 3 r. 20 c . per tcher.; 2,000 pieces of coarse silk cloth, undyed, at i r. 60 c . per piece of 8 arsh.; io horses with carpets at $5-20 \mathrm{r}$. each; 4 horses with sheepskin furs of young sheep at 3 r .20 c . each.

According to the statement of the Russian aksakal the imports from Russian Turkestan a mount to about 170,000 roubles and from India to about 85,000 roubles. According to his statement Indian trade over Khotan has increased in recent years. Badsuddin Khan, on the contrary, considers that higher prices for fodder and the consequent increase in the cost of transport have had a detrimental effect on Indian trade. The cost of transport is about as follows:
according to the Russian aksasal:
Khotan-Ledoq per horse ( $6 \mathrm{I} / 2-7 \mathrm{p}$.) 22 r . Khotan-Ledoq (formerly 20 r .) 30 r .
Khotan-Aqsu per donkey ( 50 lbs ) 3 r .20 c .
Khotan-Urumchi per» 8 r .
Khotan-Kashgar " " 2 r. $40 \mathrm{c} .-3 \mathrm{r}$.
Khotan-Osh by donkey takes 22 days
according to Badsuddin Khan:

Ledoq-Kashmir io r.
Kashmir-Barmulla (by steamer) i r. 20 c. Barmulla-Pindi (by arbah) io r.
The cost for the distance Khotan-Ledoq varies from 20 to 45 r ;

Khotan-Ledoq by donkey takes 27 days

Ledoq-Kashmir

Kashmir-Barmulla
Barmulla-Pindi
it is cheaper earlier in the summer and rises towards autumn.
Three years ago the whole transport from Khotan to Pindi is said to have cost 40 r per horse. Khotan-Amritsar 60 r per horse.

A horse's load from Pindi thus comes to about 51 roubles, while from Andijan it costs about 20 roubles. Besides this considerable difference in price Indian trade has to contend with the disadvantage of only being able to supply goods during part of the year and of having to sell them to dealers on a whole year's credit, whereas the Andijan merchant only grants three months' credit. A horse's load for India, furthermore, does not seem to exceed 6 I/2-7 poods, while those sent to Russian Turkestan carry quite 8 poods. In Yarkand Indian trade is facilitated by the fact that the Hindus who come with the caravans make a good profit on Russian gold coins that are bought in Chinese Turkestan and melted down in India. In Khotan, however, there is no Russian gold and the Chinese authorities have forbidden the exportation of Chinese gold. The attempts to establish a caravan route over Polu have so far not succeeded. The road is supposed to be much shorter than over Kukjar and can be covered in 20-2I days. The first caravan with merchandise arrived this year at Keriya, but judging by the information I obtained in Khotan this trial trip seems to have been only partially successful. The country is said to have been so difficult that of 30 asses only 20 reached their destination and my informant (Badsuddin Khan) assured me that the merchant, who had taken the risk, would not attempt a second venture. The fact that Indian trade maintains its position in spite of these drawbacks, is due to its supplying some goods that are not imported at all through Russian Turkestan. With regard to goods supplied from the west, the Andijan traders definitely seem to hold the upper hand and will, perhaps, do so still more owing to the construction of the KashgarNarja road. Among the impoverished and unpretentious population of Chinese Turkestan it is not the quality of goods, but their cheapness that counts. Whether Russia will prove equally succesful in overcoming the competition that is arising in the shape of a Peiping-Lanchow fu-Hami railway, remains to be seen.

December Ith. A large crowd collected this morning in the Beg's courtyard and in the neighLanghru bouring street, when I mounted my horse. Both the aksakals escorted me on horsevillage. back. Badsuddin Khan accompanied by his nephew, the Russian by a servant with a rifle on his back and a fine Persian sword stuck into his belt. He himself swaggered about in his red velvet khalat on a beautiful and well-groomed big chestnut. Besides my own men I had two yigits of the mandarin's and one belonging to the Beg of the district through which I was to pass, so that we formed quite a cavalcade. One of the mandarin's servants in full dress met me in the bazaar street and handed me his master's card with his parting greetings. He had been so kind as to start early in the morning in order to accompany me, but heard that I was taking a road that would be difficult for his arbah to negotiate
and had turned back. Just outside the town I began to draw a map which delayed my progress considerably, especially in the populated districts, where you cannot get any suitable perspectives. The road goes SW through tilled, fertile and densely populated districts as far as Tuma. Just beyond the town you cross a ravine, the same one that leads past the wall of the fortress on the west. A little further on we passed between two villages, Tygla on the left and Tomasha on the right of the road, each consisting of 200 houses spread over a large area. A quarter of an hour later we came to the village of Saxam, Badsuddin's home. The road was good, the bridges we rode across were in good condition, the rivers and üstangs of no great size and fordable throughout the year. Shortly before reaching the village of Moji the road crosses a swampy river bed, Kalabagh üstang, dug in olden times, it is said, by the Kalmuks during their period of power. There is a damp and grassy plain with good pasturage between Moji and Tuma. From Tuma I took the same road as before on my ride from Ujat.

Shortly before reaching Ujat we turned aside to the sandhills to the south to look at the Kohmeri mazar. It lies among high, wild sandheaps that descend abruptly here to the river Qaraqash. The mazar is profusely decorated with all kinds of trophies and is rather impressive in this wild place. Next to it on the other side of a mound is a grotto in the sand and stones. You enter it by a ladder and go on into its four chambers through such small openings that I was not able to squeeze through in my coat. The roof of the grotto is quite black. There is a legend that, when pursued by his enemies, Haji Kohmeri took refuge in this grotto that opened up miraculously during his flight. The entrance was so narrow at that time that he was only able to enter in the shape of a snake. The black colour of the roof is supposed to be due to his enemies' efforts to smoke him out. The people believe that he is still inside the grotto and appears to those who can pray with sufficient fervour. Outside there are a small Mohammedan temple and a couple of shelters for pilgrims. The pilgrims inscribe their names on the walls of the temple.

From Ujat the road crosses a large sandy plateau to another point on the Qaraqash, cutting off a bend of the river. Time was getting on and it was dark before we had crossed the bed of the river that is covered with boulders. Another 40 minutes took us to the house of the Yuzbashi in Langhru, where a room had been heated by my little stove and a welcome "pälaw» awaited us. Langhru is a village of $60-70$ houses and $\mathrm{I}, 500$ mou of fields. Opposite it lies a slightly smaller village, Uzun-aral with about as much land. The fields are poor (third category), but the pasturage in the hills allows the inhabitants to keep a good many cattle, about 15 head per house. The population looks fairly prosperous.

From Langhru, which lies between the river Qaraqash and the last spurs of the Qaranghutagh mountains towards the north, we followed a road that creeps along the

December Pujiya v very foot of the mountains which seemed very beautiful after my long stay in the plains. The ground was sandy, but the horses did not sink deep in spite of the sand being fine. The road is good and even fit for heavy vehicles except in two places, where a little blasting would be necessary. A little to the SW of Langhru, where the Qaraqash begins its bend to the north, the road is so narrow for about 300 paces that a vehicle on wheels could


On the road from the village of Pujiya to Duwa.
scarcely pass. 1 i/2 -2 miles before reaching Pujiya the road descends the slope of the mountain into a valley between two mountain ridges. Here blasting is absolutely necessary for a distance of about 300 paces. At low water it may be possible to avoid the first place by going along the river. At all events the road can be widened there. The river cannot be crossed even on horseback for a month or two in May and June.

At the point, where the Qaraqash makes a bend and turns in an almost northerly direction, you pass through the village of Popuna with 70 houses and about 1,500 mou of tilled land. Here the road turns in a more westerly direction and leaves the river, but rejoins it at Pujiya after making a bend in the shape of an $S$. You enter a sandy plain that takes you to the WNW, ascending slowly, until you reach the highest point about 2 miles from Pujiya and start a descent that is rather steep in some places. During the ascent we crossed a ravine with steep, sandy sides in places, where some digging would be necessary to make a way for vehicles. The chain of mountains, which follows the road on the left, is picturesque and the river bed, disappearing in the north with the fields and trees of Popuna on the high left bank and its steep sandy slopes and hills on the opposite bank, helps to make the wild landscape beautiful.

About a mile WSW of Pujiya there is a fairly large flat mound of sand built in the bed of the river and in its NW corner are the remains of an old fortress. The southern and western walls are still fairly well preserved, but the others have disappeared. Excavations have been made there in two places to a depth of about 2 I feet without, it is said, discovering anything. The people say that about 800 years ago a town stood on the mound, protected by a fortress, the walls of which are still visible. The town was the residence of "Kungsaz Mumam», who ruled over the whole oasis of Khotan at that time.

A couple of ruined ramparts can be seen between the mound and the village, though they do not seem to be connected with the fortress. Pujiya is a village of 80 houses with $\mathbf{r}, 500$ mou of tilled land.

A long journey to-day. From $8 \mathrm{a} . \mathrm{m}$. to $6.30 \mathrm{p} . \mathrm{m}$. we were on the move in- December cessantly, except the short halts we made for gauging the line of the road. The last hour Duura vi was so dark that I had to give up my mapping, so that to-morrow I must ride back to the same place. The whole road goes through a desolate district along ravines, dry at this time of the year, which wind among a crowd of sandhills. There is no vegetation excepting a tall bushy plant growing along a small part of the way. Neither was there any sign of animal life, with the exception of the carcases of a couple of horses. That there were not more is due to this not being a route generally used. The road is good on the whole and fit for vehicles with the exception of some ravines, the steep sides of which require some levelling. The road from Pujiya immediately after crossing the Qaraqash, leads northward along the western river bank that is almost perpendicular at this place. You cross a ravine that would require some work, if vehicles were to be able to pass. After proceeding for about 30 minutes along the bank you come to another ravine with a steep slope. Here the road turns to the west and goes along the bed of the ravine. A depression in the sand with a little water at the bottom indicates that a rapid river is formed here at some seasons. According to our guide the road is impassable for a couple of days after rain in the mountains, which usually occurs twice a month during the spring and summer. We followed the ravine for about 3 hours, the track of water becoming more and more insignificant, until the road turned NW and led us up such a steep sandy slope that it would be diffficult for heavy vehicles to mount it. However, it should be possible without the ground being prepared. Once you have reached the top the road keeps on, ascending slightly, in a NW direction. In about half-an-hour it took us across a ravine that also calls for digging. In rather less than another hour we came to a paotai post, a modest one consisting of a few stones marking the boundary between the districts of Khotan and Guma. Here the road turns sharply to the W and begins to lead upwards, but about half-an-hour later it resumes its NW direction. In the SW beyond the nearest hills some snowcapped peaks were visible. The day was cloudy, but hot, and the sand was not too soft for pleasant riding. The road goes up and down over a plain, plentifully bestrewn with knolls on which the low bushy plant I have mentioned grows. It is small and insignificant in itself, but has such large, tree-like roots that the population of these treeless districts digs them up for fuel. About an hour and a half after passing the paotai post we rode down again into a ravine, its name Yapqash jilga proving that it sometimes becomes a river. Soon it debouched into a broader ravine, Sukluk tash, coming from the W and took our road in a wide curve to the west until we reached the Duwa Kishlak plain. In the darkness we could distinguish on the left the faint outlines of steep sandhills, along the foot of which our road passed with a line of trees on the right. The guide and my other Mohammedan companions dismounted and I followed their example. We were at the foot of the Usjma or Duwa mazar with Hodja Abul Kashim's tomb. My companions stopped for a moment,

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stretched out their hands towards the tomb of the holy man and mumbled some kind of prayer. They then continued their journey in silence. The village lies at a short distance; a house had been made ready for us and I decided to rest there for a day. Duwa is a prosperous settlement of about 100 houses with about 7,000 mou of tilled land and the possibility of increasing the field area still more. As in most of these mountain kishlaks, the population has plenty of cattle that graze in the mountains.

December ${ }^{5}$ th. We started at 7 this morning after spending a day and a half at Duwa. Badsuddin Puski village. Khan and his nephew returned to Khotan to-day via Pialma. They accompanied me to the other side of the river with a crowd of the villagers, where a touching parting took place. The ncphew was to have accompanied me to Karghalik, 5 days' journey further. Either they were tired of the journey or else they saw that no business was to be done, or there may have been some other reason, but in any case the nephew suddenly remembered in Duwa that he was to get married in a few days' time and had to leave me, so as not to be too late for his own wedding. Of course, there was nothing to be said in the face of so grave a reason. He is 18 and is to marry his aunt, who is 13 . I have been exchanging interminable courtesies with his uncle ever since last night. He said he did not know how he could bear the pain of parting. The first few days are always very hard; he had grown so used to seeing me that he looked upon me almost as a member of his family. I did my best not to be outdone by him and the air in our room must have been thick with compliments. If his were as sincere as mine, he must feel as happy at present, alone with his nephew, as I do in my own company. However, yesterday he rendered me a last slight service, for without his gift for persuading his fellow-countrymen I should never have succeeded in inducing the mullah to part with the »täskir» of the Duwa mazar which must be old to judge by the mullah's resistance and his reluctance to sell it. It will be interesting to see how many of the others are genuine. It would also be interesting to see how much of the money I have paid gets into the hands of the mullah, for all payments have been made through Badsuddin Khan, and I am very much afraid that the mullahs have had to be content with a very modest share.

Our journey to-day was rather shor er than yesterday. The weather was cold and windy, but soon changed and grew so warm that I slung my fur over the saddle and rode in my coat. The road curves at first to the SW, W and NW along the steep bank of the river Chong darya, the fields and plain of Duwa Kishlak extending on both sides. In contrast to many other villages, the part of Duwa that I saw, at any rate, is built with the houses fairly close together and there are only a few dwellings in the fields. The Chong darya is fordable throughout practically the whole year. When it is in spate in the spring, it is sometimes impassable for two or three days. After following the river for an hour the road turns NE and leads into a narrow cleft in the high bank. We followed the zigzags of this cleft for about 5 minutes until we reached a level plain surrounded by mountains. The cleft can easily be made passable for wheeled vehicles. The plain very soon leads to the Kök Boinak (not Muinak) dawan, from which the road winds along a very narrow, dry river bed, Kochallik akhzy. Here there are a couple of steep slopes, though it should
be possible to negotiate them on wheels without any preparatory work. From this place a long rising slope took us to a broad mountain pass, Kochkaushi dawan, beyond which we travelled for a considerable time at about the same level until we descended into a narrow valley, at the botton of which, judging by its name of Kumushluk jilga, a river forms at times. The road follows the innumerable twists of the valley for half-an-hour and then climbs a steep slope which would require some digging before it could be driven along, though this would be comparatively easy in the loose sand. The top of the eminence is called Kumushluk jilga dawan, although it can scarcely be called a pass. After a slow descent to the NW we reached a dry and narrow river bed, Kitas-tash jilga, that crossed our road. On the opposite bank we found ourselves on a large plateau-like plain on which the same constantly recurring bushy plant grew The road goes on uninterruptedly until it is again intersected by two parallel river beds, divided by a very narrow and long sandy eminence. The first, Kambes jilga, like all those I have mentioned (except the Chong darya), is dry and holds the water after heavy rain for a couple of days at most. The other, Kumushashkösh jilga, was only formed recently (according to what I was told) last year and obtains its water, which is salt, from mountains close by (less than 1 paotai). The banks are so steep here that they might require some work. From this place we went on through this sandy desert with a couple of men from the village of Puski, who met us with hot tea. A ride of another half-hour across the same fairly level plain and then a breakneck climb up the steeply sloping bank of the river Zangui aq or Puski darya, as it is called here. In about another mile along the bank of the river we reached a house, where a crowd of common people had collected to get a sight of the sahib.

As soon as the road leaves Puski it goes for about half-an-hour up a fairly steep December slope till it reaches a mountain pass, Gazbash dawan. During the ascent the road is Sulgahiz so narrow in places that some points of rocks projecting out of the ground would have langar. to be blasted to make it passable for wheeled traffic. From Gazbash dawan it proceeds WNW, only descending slightly, until it comes to the edge of an oasis bearing the name of the river Sandju, along the banks of which it extends. From the high plain you get an excellent view of the long and narrow oasis, the ficlds of which, cut up into small squares, and numerous trees must afford a welcome relief, especially in the summer, from the surrounding sandhills. Sandju is an oasis of about 1000 houses distributed among the following villages from east to west: Dombak 150 , Baskak 300, Khanaga 200, Saidulla 100 and Sawu 250. On the average about 20 mou can be calculated per house, but as regards fertility the soil is very varied. The best soil yields, on an average, up to 20 tcheraks of crop for 2 tcheraks of seed, the worst only 5-6. In some places the soil contains much salt. Only grain is grown and it is consumed locally. The population does not seem to be very prosperous, for on an average it does not appear to have more than $1 / 4$ horse, $3 / 4$ cow and $3 / 4$ donkey per house. Its only wealth is sheep, of which there are about 25 to a house, though, of course, very unevenly divided. The principal source of income is wool, which is either sold as a raw material or is turned into felt, the only industry pursued by the indolent population. We rode through the villages of Dombak-Saidulla, Khanaga
and Sawu, which are connected with each other. The last is the richest and lies on the other side of the stony river bed, which is about 150 fathoms wide. Just beyond it the road goes in curves up a steep sandy slope, the crown of which is called Sawu dawan bash. On one of the most inaccessible sandhills lies a mazar, the poles and trophies of which look at a distance like a tuft of hair standing on end. From here the road leads for almost three hours along a high plain, overgrown with low bushes, and intersected at times by some small sandhills or a slight hollow. At about 6.30 p.m. we came to the edge of this plain which seems to break off suddenly here and goes on again a little further on. At the foot of this gap lie some fields with a couple of houses and a small pond. The place is called Sulgahiz langar and serves as a station for the caravans that travel this road, though the majority pass this langar and make a halt in Sandju. A mazar on a mound at the foot of the gap in the ground, a few venerable old trees and a little murmuring ariq delight the eye in this deadly monotony.

December 17th. The road goes along a seemingly endless plain until in an hour and a half you Sazan village. come to rather a steep declivity leading to the valley in which the village of Kochtagh is situated. From the top you have a good view of the valley with its large village and farms marked here and there by small clumps of trees. In the hazy atmosphere a pile of rocks seems to rise indistinctly in the $S$ and SW on the edge of the village. On this side of the village there is a little purling stream, over which a defective bridge has been thrown, quite unnecessarily, for the narrow bed of the stream is fordable at all times of the year. The village is fairly large, 340 houses with about 21,000 mou of land, and its boundary is not marked by the sand of the desert like most of the villages I have visited so far. Having ridden through the actual kishlak, also rather scattered, you come to a number of single houses, the fields of which connect Kochtagh with the kishlak Isme Salar about 7 miles away. The latter, a village of 150 houses with about 1500 mou of fields, is separated by the bed of the river Kilian, about $2 / 3$ of a mile wide, from the village of Sazan, the goal of this day's journey. On the south Isme Salar is bounded by a mass of rock that turns SW and disappears in a direction parallel to the bed of the Kilian. Barely $2 / 3$ of a mile south of the spot where we crossed the Kilian, a small village of 4 or 5 houses, Boinak langar, was visible on its eastern bank. The Kilian divides here into two arms encircling a narrow strip of land scarcely $2 / 3$ of a mile in length. Sazan is one of the stopping places of the caravans, as it lies in the centre between Sandju, Kilian and Kuktar. The road we travelled to-day is suitable for wheeled traffic everywhere. The Kilian which is about $2 / 3$ of a mile broad here, including the island, can be forded all the year round. When the water is at its highest, it may hold up traffic for not more than a day or two.

December I8th. To-day's 8-9 paotai, according to the statements of the local people, seemed a Bora village. short ride, perhaps because the country presented less difficulty than usual for mapping. We started at $7.30 \mathrm{a} . \mathrm{m}$. and at 3.15 we reached the house of the Yuzbashi in the village of Bora, followed by some of the inhabitants of the village, who had come to meet me with hot tea, hard-boiled eggs and kishmish (almonds or nuts and raisins). The road
leads NNW throughout, the first half passing through tilled land with, considering the local conditions, a large number of houses scattered round the fields, the latter part through waste sandfields. We passed through three small villages, Bash langar, Toghraq Kapruk and Hasan Boghra Khan, which are almost connected with each other by a number of scattered single houses. The sandy soil between the two latter is as thickly strewn with boulders as a river bed, though the features of the landscape do not suggest that water was present here formerly. Beyond the last village we entered hilly, sandy ground without a sign of water or a trace of cultivation. The ground displays at times large undulations, at others hillocks, sometimes in the shape of large pyramids, and again fairly high hills, though always of soft outline without any precipices or sharp lines. The desolate sandy landscape is fatiguing and it is with a feeling of real satisfaction that, just as suddenly as on the previous days, you see, on gaining an unexpected declivity, the grey mud houses of a densely inhabited kishlak of appreciable size with its trees, plots of field and mud walls. How one longs to put some paint on them to enliven this hopeless grey tone that seems to be all-pervading in Central Asia! Bora is a poor village with scanty fields. Owing to the shortage of water only half of the field area is tilled. There are only a few cattle per house, $1 / 10$ horse, $1 / 4$ cow, $1 / 3$ ass and $11 / 2$ sheep. There is no handicraft except for domestic purposes. My host's neighbour has 1 mou of field and a family of 5 children to support.

Having ridden for half-an-hour through the tilled fields of Bora you enter a sandy plain that seems endless. The hills that frame Bora on the east and west, disappear very soon. First, the western hills leave the road and soon after the eastern ones, which have been growing smaller, seem to melt into the hazy horizon. The day was cloudy and cold. The yigit and Rakhimjanoff frequently walked part of the way in order to keep warm. For hours you see no:hing but sand - except horsemen appearing on the horizon from time to time like ships at sea. After a ride of over three hours the sand suddenly gives way to coarse gravel and boulders, though there is no change in the level of the ground to be noticed. At a distance of about a mile and a half, a sort of bank became distinguishable through the mist - the outlines of the village of Frok. Its 150 houses cover a long, narrow strip of land between the band of gravel referred to, about a mile and a third wide, called Tchakandelik aqsu, and a much narrower one known as Siyak üstang. Round the latter dry river bed, or rather along it, lies the village of Siyak with 300 houses, also very scattered along its length, i.e., approximately from $S$ to $N$, and separated from the village of Bash-urang with its 300 houses by a third dry river bed, Bash-urang üstang, covered with gravel, which is also almost level with the rest of the land. All these three dry river beds are arms of the same river, the sources of which lie higher to the south in the region of Zunglang. When rain falls in the mountains, they contain water for 5-10 days at a time. These rainy periods occur 4 or 5 times during the hot season. The villages are poor, the fields lean and the water insufficient. The Bash-urang fields were succeeded by a sandy plain, but in $3 / 4$ of an hour we reached the edge of the oasis of Karghalik. A modest little river, the Topoge su, now practically dry, flows along it. At the point where the road crosses it, there is a
mazar with two fields among the sand, an area not much larger than could be covered by a couple of sheets A row of planted and well tended trees seems to set a limit to the further advance of the sand. Another $1 / 4$ of an hour along roads flanked by poplars, willows and mulberry trees brought us to the Karghalik bazaar.

The same room that I had on my former visit had been prepared for me. Soon after my arrival the Beg of the bazaar called on me, a handsome Sart with a cringing and insinuating manner which is common to all Sarts in the employ of the Chinese. He brought me a welcome parcel, a craniometer made in Yarkand thanks to Dr Raquette's kind offices. In spite of all its shortcomings it will enable me to take anthropological measurements in Karghalik of about a dozen members of the little-known hill tribes Shiksho and Pakhpo, who live in the mountains at the place, where the river Tiznaf has its source, or on its upper reaches.

I also received two letters, one from the commanding officer of the Cossacks, enquiring about the work and behaviour of the men, the other from Raquette renewing his invitation to spend Christmas with them. The yigit, whom the Ambal in Guma had sent me, told me that my arbah had not reached Guma when they left and made me anxious lest I should be forced to stay in Karghalik longer than I had intended. However, my anxiety was relieved by Ljo's appearance late in the evening. My forebodings in regard to the driver Tchao had, unfortunately, been justified. No sooner had I left Khotan than he sold the harness and all the rest of the things belonging to the arbah and even broke into Ljo's quarters and stole various belongings of his. Thanks to the intervention of the kind mandarin, Tchao was thrown into prison and most of the missing objects were bought back. The mandarin himself had provided the money and had told Ljo not to let me know of it. Of course, I will repay the money he expended, when I reach Kashgar. I will also send him his photograph, if it is good. Ljo had not been able to find another driver, but the mandarin had given him a reliable, bearded Sart, who had driven the arbah. The mandarin had sent another yigit with the arbah to Guma. As a mandarin has to pay the wages of a yigit ( 80 cop. a day) out of his own pocket, it is rather embarrassing to have so much attention showered upon me. As a further instance of the kindness often experienced at the hands of the mandarins I might mention that, in passing through Guma, Ljo met the Governor of the district, the same man whom I had met in the desert. He expressed his regret that I had chosen another road. He had ordered a room to be heated and prepared for me in his yamen. However, the delay in Khotan had made Ljo two days late in starting. To arrive at the appointed time he had done the journey from Guma to Karghalik in one day. Both the arbah horses had been slightly galled, but I appreciated his punctuality.

December 2oth. I spent the day in photographing and making anthropological measurements of Karghalik. 8 Shikshos and 4 Pakhpos, who had been fetched from the mountains at my request. I would have preferred to visit them myself, but my stay in Yarkand has made my time rather short. The Pakhpos, in particular, seem to possess a distinct type of their own. Their dress is the same as that of the Sarts, also their habits. As regards language they
say that they speak the Yarkand or Karghalik dialect, i.e., the same language as the population, but I thought I noticed some difference in pronunciation, e.g., they said oYarkandloks not "Yarkandlik" as the Sarts do. My Cossack interpreter, too, said that he noticed a difference and could understand them better than the Sarts in general. Unfortunately, he could not quote any particular words. - The Pakhpos inhabit 3 villages: Pakhpo containing ıo houses, Kukde 10 and Lugyeitak 10 , all on the highest reach of the Tiznaf. The area of their fields is about 300 mou. Only corn is grown. In summer they live in kibitkas, while their herds graze in the mountains, in winter in huts in the villages. Judging by the number of their cattle, they seem to be fairly well off. They have about 60 horses, $50-60$ asses, 500 kutas cows and oxen and $5,000-6,000$ sheep. - The Shiksho villages are situated higher up on the Tiznaf and, I understand, slightly to the west of it. Their men had left before I had a chance of talking with them, so that I obtained my information from a Pakhpo. He mentioned the following villages: Yazakh of $20-30$ houses, Lugüstang of 20 and Kichiquistang of 30 . They seem, however, to be more numerous than the Pakhpos, for the people say *altmysh (60) Shiksholik* and warabysh (40) Pakhpolik. They are said to be less prosperous than the Pakhpo tribe. - Both tribes have their own mullahs. Among the Pakhpos there are 5 who have made the journey to Mecca. The Beg for both tribes is a Shiksho. Each tribe has its own Yuzbashi. They marry almost exclusively within their own tribe. Unfortunately, I could learn nothing of the past history of these tribes. They pay 8 cop. per mou of field in taxes to the Chinese authorities and in selling cattle 80 cop. for a kutas, 80 cop. - i r. for a horse, 30 cop. for an ass and 20 cop. for a sheep. - An indispensable call at the yamen to thank the mandarin for the fodder etc. that he had sent me during both my visits, interrupted my work for a short time. I did not much care for the mandarin and I cut my call as short as possible. - The craniometer has no lack of defects, as might have been expected. I have to be extremely attentive in my work to avoid mistakes, so that each individual takes quite half-an-hour.

Nothing to add to my notes on my previous journey southward. Since the night before last it has been snowing a little, so that the ground is covered by $1 / \mathbf{2}^{\prime \prime}$ of snow, a welcome change from the uniform greyness, and one that turns my thoughts to winter in my own country.

We arrived at in. $30 \mathrm{a} . \mathrm{m}$. There was a lot of water in the river Yarkand and a good deal of ice from the mountains. The ferry was working and everyone seemed to be making use of it, but I wanted to lose no time in waiting for this slow arrangement and both the pack-horses and arbah got across safely. The ice-floes bobbed about round us at a good pace in the high water, almost up to the saddle. I stayed at a Chinese sarai, where the men and I had a bright room each with a large paper window. I shall spend Christmas here and start for Kashgar on Friday the 27th with Dr Raquette.

I spent the day yesterday arranging the materials and things I had brought back from my trip to Khotan. To-day I spent a pleasant Christmas Eve with Dr Raquette and
his charming wife in their home. The porridge, Christmas cakes, home-brewed ale and even an imitation of a codfish made us think we were spending Christmas in the North. It was delightful to see the number of trays laden with fruit and sweets that were presented to the doctor and Mrs. Raquette. I was given some presents, too, an embroidered handkerchief case and an excellent craniometer. It was a great achievement to produce such an instrument in Yarkand

December 28th. During the last few days I have done nothing but study Chinese and read a little. It was easy for the Raquettes to persuade me to be lazy and have dinner and supper with them. To-day I visited the village of Hayran Bagh (the startled garden), the headquarters of the Abdals of the Yarkand district. I was received very differently from the hospitable Yuzbashi in Tamaghil. The villagers were very reserved and avoided me on all kinds of pretexts. I had some difficulty in collecting a mullah and about $I_{5}$ Abdals in order to make anthropological measurements. However, there were some immigrants among these 15, who did not belong to the tribe, and others of mixed origin, their mothers being descended from Sarts, so that when it came to the point and a couple of men, who were too old, were eliminated, there were no more than 6 skulls to measure. - The village consists of 50 houses, and judging by the number of cattle and the lean and miserable appearance of the people, they seem to be very poor. Marriage with people of a different origin seems to be no rarity, a circumstance that would appear to threaten this little tribe with extinction, at any rate here. It was impossible to get any of them to tell me anything about the history of their tribe. They all, even the mullah, affected to be ignorant and said that they knew nothing beyond what the mullah had once heard read from an old book in the courtyard of the yamen, i.e. practically nothing. They tried to make out that they were of the same origin as the rest of the population. Besides the Sart language they knew no other etc. -To-morrow I start for Kashgar with Raquette.

December 3oth. Kök Rabat.

We started yesterday morning with Raquette as arranged, but instead of riding each of us rolled along comfortably in an arbah. Nothing remarkable occurred on the road which constantly crosses ariqs, the largest of which, quite a respectable river (Opa Upa (Hurfa?) üstang) cuts across the road about $1 \mathrm{I} / 2$ paotai from the town. The road is good, the bridges likewise. About halfway to Kök Rabat the road leads across a large plain, overgrown with bad grass, marshy in some places and turning into a swamp. There are said to be many wild boars here. I felt rather inclined to spend the night at Qara Qum and hunt boar the next day, but as the kitchen had left a couple of hours in advance, that settled the matter and we decided instead to spend a day at Kök Rabat and shoot kiyik (wild goat). The hunt materialized to-day. We started at about 8 with two natives as guides and beaters. We saw many tracks on the thin layer of snow that partially covered the sandheaps in the desert, but our search seemed to be in vain. At 1.30 we were on the point of turning back, when the natives suddenly caught sight of two antelopes grazing about a mile and a half off. They posted Raquette, the Cossack and myself very knowingly and drove the animals towards us. The Cossack proved the most fortunate. The antelopes
advanced in his direction and he shot one of the lovely creatures, a male with a pair of beautiful antlers.

My stay has again been longer than I had intended. Ljo's (the interpreter's) stubborn refusal to accompany me any further and the failure of all attempts at persuasion have placed me in a very awkward position. To-day a final effort is to be made through one of his compatriots. If it fails, I will start without an interpreter and hope to find one in Qulja or, perhaps, in Urumchi, though this seems unlikely. - To my surprise, when I arrived, I found some letters from home at last, the earliest dated August, the latest November, the explanation being that although the envelopes were addressed $»$ Russian Turkestan», some bright post-office official had despatched them via India. This explains why I have had no news from Finland for months.

It seems curious to be back in Kashgar after spending a few months in the south, practically without seeing a European except my Cossack. It felt almost like returning to a centre of civilisation with the numerous duties of lively social intercourse. How different from my impressions when I first arrived, on August 3oth last year. I renewed my former acquaintanceships with real pleasure and I cannot but feel grateful to the whole of the European colony for the reception accorded me. The Swedish colony had received an addition in the person of a young lady, Miss E. Nordquist, a lively and bright Swedish girl whose cheerfulness was infectious. Central Asia seems to have a depressing effect on those who live there. A certain gloom scems to mark the European residents. I am afraid that Miss Nordquist's joie de vivre will not be able to withstand this at mosphere for long, though I sincerely hope that her silvery laugh may win the day.

I was able to supplement my ethnographical collections considerably and must express my acknowledgments to Mr E. L. Högberg for the great help he gave me. My Sart collection now amounts to about 400 specimens; it could, of course, be enlarged, but this would be difficult for anyone not living on the spot.

My new cook, who seems to be a good fellow and willing, though he has very little idea of how food should be cooked, is being trained by Mrs Törnqvist. I am looking forward with some uneasiness to the result, once we have started. It would be annoying to have lived for a couple of weeks on a brace of eggs in the morning and some boiled milk at night, if nothing were gained by it! However, thanks to invitations to dinner I have at various times been able to enjoy a decent meal, to which, I must confess, I attach a certain value in this place. At a Russian Christmas party at the house of Kolokoloff's son I even attended some private theatricals. - In addition I have been able to have some repairs done to my equipment, develop a lot of films, make a clean copy of my map and devour any number of newspapers. Most important of all, I have had my camera mended. Thanks to the unusual cleverness of the Russian consul we got it open and after the broken screw had been replaced by a rivet, it works again. This will not only enable me to take photographs on the way to Aqsu, but to go on from there direct to Qulja without troubling about my main luggage which is already at Kucha (Qarashahr).

Winter seems to be coming to an end. The last few days have been beautifully sunny


Bazaar square and mosque in Kashgar. Display of scrap metal, top-boots etc.

- real spring weather. The ice on the river beneath my windows has grown so thin that a couple of Cossacks have had to give up skating. The nights, however, are still very cold and you really suffer most from the cold indoors in this country, where there are scarcely any winter storms. It is strange that the Sarts are so inured to the cold. It is as if the great heat of the summer gave them sufficient internal warmth to endure any degree of cold. I say nothing about their clothes which mostly leave their necks and a good part of their chests uncovered, but you see naked children running about in the streets and on the roads in the severest cold, and if you catch hold of one of these urchins, his skin is so hot that you can warm your frozen fingers on him. The poorer people, especially the beggars, are extremely inadequately clad, the latter often being half-naked. If you consider that they scarcely ever have a chance of warming their stiff limbs, it is incomprehensible how they can stand it. From the miserable mud hovels of the poor to the frequently large and pretentious halls of the Begs, everything is ice-cold, and it is rare for a log to be burned in a large open fireplace. To give an idea of the cold indoors I can mention that one of Dr Raquette's patients had his feet frostbitten while lying ill in his own house. Another man got frozen to death riding his donkey, and his wife, who went out to meet him, found a corpse sitting doubled up on the donkey's back.

January 27th randasu.

I experienced a certain feeling of elation as I rode through the streets of Kashgar to-day. I look upon this start as the actual beginning of my journey. All the luggage, including 4 enormous pack-saddles, was loaded on to the arbah, the men and I riding. It was some time after io before we were ready to start, but as I could not leave until after a luncheon that the Russian consul had had specially prepared for me, I let the arbah and the men go on ahead. The natural result was that, after enjoying his hospitality and leaving at

about I p.m., I took, or rather was guided into, a wrong road paralled to the one the arbah had taken. It was only after dark that I was able with much difficulty to lind the village in which the men had stopped. After a Jong sojourn, however, the main thing is to slip your cable and get off, and if everything does not go according to plan, it does not matter very much.

Snow has fallen during the night and covered the ground with a thin laver. It is a dull day and the snow continues with a slight east wind.

The negotiations I have been carrying on with my Chinese intcrpreter through a third person have proved successful at last, to my surprise, and he is with me again, bound by a contract at any rate as far as Qulja. After all the trouble he has given I would prefer to keep him as short a time as possible, and if I come across a Chinese anywhere, who speaks some foreign language, Ljo can follow his nose wherever it takes him. I do not know what influences induced him to break his agreement with me and then to return, but I feel sure they existed. It was also curious about my passport. The Taotai, who did not know a few days ago what a "Finn» meant, has sent me an artistically decorated card in which not only the word "Finn" appears, but "the Russian subject, the Finn Baron Mannerheim, whose Chinese name is Ma-Da-Khan". Such precision and my full name correctly spelt, though in Chinese characters, is not the work of any Chinese in Kashgar. As I am unaware of the wording of the passport that has been sent from Peiping to Kucha, I thought it unwise to explain to the elderly Taotai the difference between a Russian and a Finnish subject and that Finnish subjects travelled all over the world on Fimish, not Russian passports.

My suspicion that Badsuddin Khan might try to pocket the money I gave him to pay for the „äskirs" I had bought, seems to have been justified. A few hours before leaving

I received a letter written in correct English in which, affecting complete ignorance, he asks whether I will soon send the money for the books. He says that he is being worried daily and that the money I had left was intended for paying his nephew Gand for his services as interpreter. I promptly tore up a reference I was on the point of sending him and instead I despatched a letter through the Russian aksakal that will certainly give him something to think about. I also took the precaution of sending a copy of one of the "täskirs» that I had promised by the same route to its destination. In Badsuddin's hands it would, no doubt, have served as an excuse for extortion from the mullah in Duwa. Whenever it is a question of money or other possessions, the average Cart finds it hard to be reliable.

I clearly remember Badsuddin saying, just after I had bought an old „täskirn on the express condition that I would send back a copy: kNow that the book is in your possession, you certainly need not bother about your promise." Having grown up in surroundings, in which everyone has to cringe and abase himself before the mighty and oppress those he does not need, the Sart sucks in treachery and deceit at his mother's breast and finds it difficult to rid himself of this conception.

In Kashgar I drew the balance of my letter of credit and changed my Chinese silver at a very bad rate. I hope to get a better rate in Qulja or Urumchi. Strangely enough, you can obtain no information whatever on this point at the branch of the Russo-Chinese Bank. Like true representatives of minor officialdom they take no interest whatever in what goes on around them. It is not surprising that in such circumstances I was unable to get the slightest practical advice as to my monetary transactions from the manager, who has spent some years in Kashgar. Instead of advising me to change my Russian money, because, for one thing, the Russian exchange is periodically at its lowest at Christmas, he assured me that I could change Russian money, wherever I liked. Unfortunately I was innocent enough to ask for the advice of the bank manager on money matters instead of consulting the Swedish missionaries, who would certainly have given me more valuable counsel.

The district I passed through is densely populated and seems to be fertile. Close to Yangi-Shahr the farming population seems to be Chinese along the road we followed. My interpreter says that he has been told it numbers 50,000 , mostly soldiers, who remained here after the reconquest of the country 30 years ago, or their descendants. No more recent settlement is visible. The houses of the Chinese are rather better built than those of the Sars.

January 28th.
My proximity to Painap, a village of the Abdals, tempted me to make an excursion Painap. in order to supplement the anthropological observations I had made in Khotan and Yarkand. The road of $7-8$ paotai leads through a fertile district, though poor owing to the density of the population. In several villages, in which I made enquiries, not more than an average of $\mathrm{I}-2$ mon per household can be calculated. The stock of cattle is, of course, consequently infinitesimal. The land, when sufficiently manured and watered, apparently gives up to a 6 -io fold crop of wheat and 40 fold of maize. If well managed, land of the third category gives the same crop as land of the first category - of course, provided there is no lack of water. - The Abdals in Painap make a much more wretched impression than their brothers in Qarabagh and Tamaghil. The majority acknowledge that they are professional
beggars and a great many of them own no land. When they do, it seems to be inadequate. Sufferings and privations have left their mark on these poor beings, whose lean and in many cases poorly developed bodies bear evidence of insufficient nourishment. They live by themselves, despised by the people in the neighbouring villages. There is no question of intermarriage with people outside their tribe. - The village has $40-50$ houses with about 4 inhabitants each. The tilled area is about 100 mou. There are no horned cattle, but about 50 horses and 30 asses that are used for their begging trips and about I sheep per household. The name of the village, Painap (where the water ends), does not seem to have anything in common with their history, but originated owing to the water spreading here round the fields. Four villages have the same name, one of them being inhabited by the Abdals. Here, too, they maintain that they know no other than the Sart language, whereas the people in the other villages called Painap assert that they use some other language among themselves. This secrecy regarding their language and religious differences is strange.

After making some anthropological measurements and taking a few photographs we started back from Painap about noon. Another fall of snow had increased the white mantle on the ground and the landscape looked almost northern when I mounted my horse in brilliant sunshine. But the sun soon disappeared behind heavy leaden clouds and it began to snow again with a piercing east wind. The land all along the road is tilled and very densely populated. The houses mostly stand separately in the middle of their own fields. Here and there, however, there are groups of about a dozen houses. The building materials are neither scoured nor baked bricks, but lumps of clay broken from the surface of the ground after it has been ploughed, watered and sun-dried for successive fixed periods. The field area is inconceivably small, $1-2$ mou of field per house seems to be quite usual. Their fertility varies a great deal, in some places according not only to the cultivation of the soil, but also to its quality. In places it seems to contain a good deal of salt. In the best places wheat gives a tenfold crop. The population has, of course, to find subsidiary occupations, but there is great poverty. In this poor country practically all occupations yield but a miserable livelihood. Much cotton is grown in some places, but that, too, yields only a modest profit. With one tcherak of seed the crop does not seem to exceed 4 tcheraks. It is a puzzle how a couple of mou can support a family in such circumstances, but apparently they do. One house, outside which I gave the horses a breather, was occupied by a Sart with 3 wives and 18 children. His area of land amounted to 2 mou; on one he grew maize, on the other cotton. As a sideline he buys cotton and sells it as cotton yarn. A large part of the population goes to Russian Turkestan, where much more money can be earned, and returns with some savings. To cap it all come the Chinese taxes, which, in accordance with the mandarin's unwritten laws, are often extorted to an a mount several times their value and present an obstacle to any well-being. - In 7 hours we reached Faizabad, a recently built little town, where a district mandarin has been resident for 4 years. Like the Shenguan in Kashgar he is subordinated to the mandarin (Fuguan) in Yangi-Shahr. There are 4 Begs in the district ( I for the town, or rather the bazaar) with 40 Yuzbashi each.

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Chinese cemetey al Kashgar with three large mounds raised over the Chinese and Sarts who fell during the last awor.

The mandarin of the district is one of the two who were dismissed for extortion discovered by the inspecting mandarin, who recently returned to Urumchi. It is maintained, however, that he had not excceded the limits of extortion established by custom, for he is said not to have demanded more than 3 lan 2 tchen in payment for itan ( 125 djin) of grain, for which he is bound to forward I lan bo tchen to Urumchi. The Begs, however, had extorted as much as 5 lan 6 tchen in his name, which led to complaints from the population and resulted in his removal from his post on the representations of the "Wu" by wire. I am told, however, that in such cases an investigation is often made, at which the accused mandarin has an opportunity of clearing himself and obtaining a post similar to the one of which he has bcen deprived. My friend, the mandarin in Khotan, is also likely to be removed from his post, though not on the report of the »Wu», but because, it is said, a flaw in his origin has been discovered. In Cihina, where anyone can by means of study or, perhaps, still more easily by purchase, and in any case by both together attain any official position, it is curious that the descendant of a barber, yyamen jai" (a kind of lower servant in a yamen) or an actor is not entitled to fill the post of a mandarin. Unless my poor friend with his charming manners can clear himself of this accusation - unfounded, I hope, his official carcer will be at an end or cannot be continued except in entirely subordinate positions, e.g., as a 川jai» - a rôle in which I can hardly imagine him.

February 1st. My stay in Faizabad was prolonged for two whole days, owing to a misunderstanding Yangiabad over an order - which deprived me of my arbah and luggage until last night. As I did rillage. not want to risk my luggage being left still further behind, there was nothing for it but (1) wait. Among the "sights" of Faizabad there is a Cihristian Chinese employed as a scribe in the yamen -- one of the very few proselytes of the Swedish missionaries. Both he and his wife -- a Sart woman, from her appearance -- are baptised. He seemed an honest and decent fellow. I called on them and among the religious books in Chinese displayed in the house, I found a volume entitled, in good Swedish, "Primer for Elementary Schools"

> Wintry landscape in the immediate nighbourhood of Faizabad.


- the gift of the late Miss Bäcklund. The Chinese, who did not know a word of Swedish, was very proud of his book and its illustrations, which included a picture of my uncle, the explorer A. E. Nordenskiöld, on some ice-floes with the s.s. "Vegan in the background.

The general direction of the road is $E$, with slight deviations to $N$ and $S$. At first the country is densely populated and tilled everywhere, with innumerable small farms that indicate a great insufficiency of land. In about $3 / 4$ of an hour we came to a fairly large village, Kushabad, also very scattered, though there were some groups of houses and a bazaar. Though it comprises some 2,000 houses, its tilled area does not cover more than about 5,000 mou. The soil is saliferous, in places the surface is white with salt. Wheat, maize, cotton and fruit are grown and wheat yields up to a sixfold crop and maize a 16 -fold crop. A quarter of an hour later we entered upon a very saliferous plain, on which grows a bushy kind of grass, "kamgak», which the people collect for fuel. In some places the ground forms small mounds. Another half-hour brought us to the first houses of a modest village, Ahun langar, with a dozen houses - the ground having been tilled for the first time 7 years ago - getting its scanty supply of water from Jamanjar. The water is collected in a pond. The land yields up to a io fold crop. Another quarter of an hour and we came to 3-4 houses called Chulak langar. Again a stretch of bare plain, ending in a line of young trees and bushes enclosing a rich farm, Kotkubek langar, with a large pond. Tilled land begins here again and the villages of Yangi Mähällä, about 20 houses, and Yangiabad, about 400 houses, form an unbroken chain. They obtain their water from the Jamanjar, but in such insufficient quantity that only about 200 mou can be tilled. The population goes in principally for cattlefarming and impresses one as being well-to-do. A little butter is made and is bought by about a dozen local Hindu usurers at 30 cop. per djin.

There is a good deal of traffic on the road. We met a couple of Chinese caravans with various kinds of goods from Peiping and endless processions of empty arbahs drawn by
oxen. In general the ox appears to compete more or less successfully with the horse as a draught animal on this side of Faizabad. The horned cattle are considerably finer and better fed here than in the parts of Chinese Turkestan that I have visited so far. The road was excellent and the weather fine and sunny until $3.30 \mathrm{p} . \mathrm{m}$., when the snow that had been falling for the last three days began again. To the north, in the hazy at mosphere, a chain of mountains appeared indistinctly, running parallel to our road.

On the advice of my driver I bought a local arbah in order to spare the less solid Yarkand conveyance. But we had scarcely gone $1 / 2$ paotai, when the absurdly long axle broke and the men and things were upset. By the time I had ridden up to the scene of the accident, vainly endeavouring to find a way out of the difficulty, my men and the mandarin's "jai" had stopped an unfortunate Sart, who was passing, and removed the wheels and axle from his arbah. Such is the respect for a msahib" that all passers-by seem to consider it perfectly natural that the first person encountered should supply whatever is needed. Needless to say, I paid him the seemingly modest sum of 3 r .22 c ., but seeing that a whole arbah costs 7 r. 40 c ., the price was a very decent one. Had I not paid him anything, he would have put up with it and possibly complained later to the mandarin. Even if I had harnessed the man himself instead of a horse, probably no one would have tried to prevent me.

In Yangiabad we stopped at a comfortable Chinese Government sarai with an enormous yard and rooms of almost equally impressive size. In summer, no doubt, these rooms would be excellent, but as it was we felt the cold very much, even when we succeeded in protecting ourselves from the snow that came through the roof, when the fire was lighted. From the yard close at hand we heard a strange wailing and crying - Mohammedan "weepers" collected on the occasion of a death and trying to console the mourning relatives.

February 2nd. The tilled fields of the village end a short distance from our sarai. Then the same Qara Yulghun inhospitable plain, in small hillocks, begins again. In this part of it grows a plant, village. "jantagh", similar to a bean and in height about $30-40 \mathrm{~cm}$, which the population collects for cattlefood. During the night the thermometer dropped to - $15.3^{\circ} \mathrm{C}$. and it was chilly when we started in the morning. After a time we met an old Chinese cavalryman returning to Yangi-Shahr from Maral Bashi, whither he had accompanied the Wu. A glance at his worn features was enough to show that he could not travel far without opium. The old fellow complained of the cold which, he said, made it impossible to remain in the saddle, although he was clad in furs from top to toe. He looked so comical that I took a snapshot of him. Later in the day we met more men of the same troup (ljändsjyn) returning from the same place. Fach man rides by himself, rests, where he likes, and enjoys the same liberty as regards feeding his horse. Their dress is very variegated. They are armed with small muzzle-loading carbines of fairly heavy calibre, so short that they look as if they had been chopped off. The horses are well fed and not bad. The saddles and harness are solid and in comparatively good condition, but heavy.

Two clay sheds put up on the plain at a distance of about 2 paotai from each other and from Yangiabad are available for travellers. Judging by the numerous arbahs, whose
drivers warmed themselves round the fires there, they are evidently used a great deal as stopping places. The traffic on the road was not large to-day. We only met carts with wood or charcoal, almost all drawn by oxen, some of them of a good shape and with fine heads, but not large.

Having ridden for about $4 \mathrm{I} / 2$ hours, we reached a little village, Lung-kou, containing a couple of houses and lying on the river Yangi darya, a tributary of the Qizil Su. This village is a regular stopping place for caravans, and the principal occupation of the inhabitants is to cook food and bake bread for travellers. Here the plain is sparsely overgrown with a poor kind of tree, often bush-like and no higher than a man on horseback. Two paotai further we reached our goal for the day, a couple of poor houses bearing the name of Qara Yulghun. The Qara Yulghun darya or Kun darya, also a tributary of the Qizil Su, flows past them. There was no maize to be bought, nor any horse available to fetch some from Lung-kou. Luckily, we were able to buy the most necessary fodder from a passing caravan.

At I p.m. snow began to fall again, dropping like an impenetrable white veil between me and the beautiful mountains in the N , the indistinct outlines of which I had been able to trace despite the hazy atmosphere.

Yesterday I rode with Rakhimjanoff, Ljo and a local hunter across the plain February that is sparsely covered with poor trees and bushes. Our hopes of bagging one of the Ordeklik "kiyik» (wild goat) that are said to be plentiful here, were frustrated. The snow of the village. last few days, heavy for these parts, had, according to our huntsman, driven the wkiyik» into the mountains. The plain is quite desolate and without water. The range of mountains in the north, which still accompanied us to-day, and the mounds of earth and hillocks, relieved the monotony slightly. The vegetation was poor. Small trees, arrested in their growth, bushes and a bushy kind of grass were about all there was to see. Plenty of dry "toghraq" fuel and here and there an old low tree-trunk of larger size indicated, however, that at some time the vegetation had been better than it was now. After a vain search of a few hours we returned to the road at one of the 2 or 3 langars that are the only refuge of the caravans between Qara Yulghun and Ordeklik. A couple of ramshackle houses without a strip of field, inhabited by a couple of families that supply bread, flour etc. to passing travellers, form the picture of the anything but inviting langar.

The road is good and easy for traffic, at any rate during the cold season. In some places the sand is rather heavy, but on the whole firm. Very little traffic to-day, only a few arbahs with wood and charcoal going westward.

Wild boar are plentiful in this district, and if the population had the faintest idea of how beaters should function, our 7 hours' hunt would have produced more than a solitary boar. Among the thick reeds of the Qara aq, flowing from the Qizil Su, we sighted several, but instead of trying to drive them towards the guns, the men did all they could to make them run away from us. It was only towards the end of the hunt that we could get them to understand that instead of running in all directions, hallooing and shouting, they should spread out in line and advance towards us. A few days here would certainly


A Chinese caralyman
on the way from Maral
Bashi (1) Yangi-Shahir in Io 12 degrees of frost.
sulfice for finding and shooting a number of wild boar. The river forms a very wide dela here, thickly overgrown with reeds as high as a horse. Here and there you find hillocks that afford an excellent view of the whole landscape. The country between the bends of the river is wild and overgrown with bushes and thickets. In some places the dry ground is so porous that the horses sink into it as in a bog and it is difficult to advance on foot, leading your horse. It was quite a business to bring in a wild boar that had been shot. None of the Mohammedans would touch it. To get the tusks sawn off, the carcase divicled and despatched to Kashgar as a present to the Russian consul and the Swedes proved simply impossible. At last I came across a Chinese, who undertook the job, but unhappily a dog ran off with one of the tusks, while the entrails were being removed.

Ordeklik is a village of roo houses, of which, however, only a few are situated in the village itself along the road. 'The population seems to be poor, the cattle few, the field area about 5 mou per household. In order to increase the field area the inhabitants are digging a long ariq from Lung-kou. This year a Beg has been stationed in the village. Wheat, maize, cotton and melons are grown. Wheat yields a 15 -20 fold crop, maize fo fold. Cattle are said to be sent here from Kashgar to graze. There are 10 - 12 northerly storms annually, lasting $2-3$ days.

February 5th. The country that the road runs across is flat, though there are frequent small, but Qara Kichin often steep sandhills overgrown with trees and bushes. The low trees growing on the rillage. hillocks are of medium size here. I followed the road for a distance of about I paotai and then, with yesterday's hunter, I turned west, i.e., to the N , in order to rejoin the highroad after making a wide circuit a couple of paotai before reaching the village of Qara Kichin. After riding for about $3 / 4$ of an hour to the NE we passed a channel, where a river

had obviously flowed formerly. Latge trees grew in its bed now. . Dbout an hour later the hillocks gradually grew smaller and the larger trees disappeared with them, only on appear again an hour later on almost level ground, densely covered with dry "oghrag" waste, roots, branches etc. that made it rather heavy going for the horses. Hete again we crossed what was obviously an old river bed in the direction NW SE. According to our guide it was called "Kun daryan and carried the water from the Qizil Su centuries ago. We followed a couple of kiyiks for a few miles, having surprised them by our sudden appearance, but as the tracks seemed to lead straight to the mountains, about $3 \cdots+$ paotai distant, and the ground was too trying for the horses, we gave up the chase. There were numerous tracks of wild boar, wherever the njantaghn grass grew on the hillocks. Here, too, the ground was so heavy for long stretches that our horses sank deep into it. The local people call these places wsjorm and assert that the soil here is very saliferous.

The morning was very chilly, but it cleared up in the alternoon and was guite warm. The mountains to the north were uncommonly clearly visible to-day and formed a sery fine background to the ugly and monotonous landscape.

In front, i.e., north of the village of Qara Kichin, there is a bog which the arbahs avoid by going off the road and making a détour. There is a Government sarai in the village with a large yard. The one I stayed at was bad. In general the sarais on this side of Faizabad are more than unpretentious. At first sight this seems strange, for this is the main route of all the numerous mandarins of Kashgaria. On second thoughts, howerer, and considering the preparations that are made for the arival of a mandarin, you realise that even a hovel filled with carpets and rugs may be comparaticely comfortable and that a mandarin requires a good sarai less than anyone. For a "sahib", too, a luss is made, and if you have some rugs of your own you are all right. These loose rugs fill the air with wisps of hair that get into your mouth, your food, your pen, when yot start writing, in a word everywhere where you do not want them.


Dressing cotton with a harp in the village of Qaia Kichin.

Qara Kichin is a small village of 18 -20 houses and 100 mon of land established about 20 years ago. Timber which is cheap in this "well wooded" district is cut into rough planks and is used, too, for building houses which, however, are very defective. The population is poor. Not many cattle. We saw children making meal in the street by pounding grain in a mortar improvised from a hollowed-out block of wood.

The inhabitants call themselves "Tea Mogals» and come from a village of that name in the neighbourhood of Khan ariq. They claim to be derived from "Shals», „Atshloks», "Begile» and "Ala Buran", who founded their village about I300 years ago. The Shads numbered 20 and no one knows where they came from. Begging was their profession. The Atshloks came as merchants from a village bearing their name in the vicinity of Gashgar. One by one they settled in Tera Mogal. The Begile had accompanied a Beg from Yarkand, who came to Tera Mogal, married, and then returned, leaving his companions who stayed on and were called Begile after the Beg. Ala Buran was a stranger, who said he had lost his way during a "buran» (storm) and could not find his home again. Hence his name. --- In Yaqub Beg's time the Terai Mogals were among his keenest supporters and after his death most of them had fled toAndijan for fear of the vengeance of the Chinese. They only returned some time after. Their language, customs and appearance are like those of the Sarts in Kashgar. Winter lasts about 3 months, though there is no great cold. The snow seldom lies long. Wheat and cotton cannot be grown. The wild boar do a lot of damage to the maize fields, and the population, being unarmed, is helpless. The populaion is often ravaged by smallpox and many of them are pock-marked.

February Eth. The bog that surrounds the village NW of Qara Kichin, comes right up to the Churga utang road that leads eastward, thus bounding the village on the north. Here and there village. further on we saw irregular patches of ice, indicating the bogginess of the district until after a ride of about $3 / 4$ of an hour we reached the edge of a thin "toghraq" wood,

rather taller in growth here than those seen during the previous days. The wood goes on, more or less dense, as far as the village of Churga utang, where we were to spend the night. About I I/4 hours ride from the edge of the wood a small river "Zerkesh" skirts the north side of the road, only containing water in the spring. The river was frozen, but the dirty yellow colour of the ice indicated anything but clean water. The population say's that the water is salt and that the river comes from the Qara aq in the neighbourhood of Ordeklik.

About an hour later we came to a still larger river, the Kone darla, also north of the road and flowing quite close to it for a time. The ice prevented my seeing where it came from, but according to the statements of the inhabitants it comes from the east from "(hugautang daryase" and only has water when the latter river overflows. We only travelled 5 paotai today. Weather dull and cloudy.

Some kiyiks that showed themselves for a moment close to the road, tempted me to try to reach them on foot with Rakhimjanoff. After tracking them in vain for a few miles we gave it up. The numerous tracks and plentiful „jantagh» grass show what a good huntingground this must be.

Churga utang, a small village of 12 houses with $30-40$ inhabitants and about 80 mon of fields, grows wheat and maize. The cattle are few and the population poor. Besides farming they have no other source of income except what they earn from travellers. The river Churga utang darya contains water throughout the year, though very little in the spring, and most in summer. It comes from the mountains to the west and flows past Maral Basho where it is lost in ariqs. Winter lasts 3 months. The snow lies for 20 days at most, when there has been a heavy fall. There are never more than 3 cm of snow, which is strange. About 10 burans during the year, mostly in the spring and coming from the

NW. Sometimes there are such severe hailstorms in the summer that they knock men down. The inhabitants are Sarts, principally Kashgarliks. There is a badly kept Government sarai in the village and the one I have put up at which leaves a good deal to be desired.

February 7th. The road continued eastward through the same "toghraq" wood, though it had been Maral Bashi. cut down a good deal close to the village, and lower, apparently, than yesterday. The Imperial Chinese telegraph line with its single wire on the right and the mountains to the north on the left of the road were our faithful companions. About half-an-hour from the village a bog, covered with ice and reeds, appeared on the left not far from the road. Three-quarters of an hour later the road brought us to a small river and for a while the road kept to its southern bank. People we met assured me that it was not a river, but a bog with standing water, but the comparatively deep bed looked more like the bed of a river. The local people assert that it is the same waterway that creeps up to the road repeatedly, returning in a broader form each time. Out on the plain I saw fresh water running in a narrow depression, but could not tell whether it was the same river. Having ridden a couple of hours, we found that the road debouched into a very large plain, open as far as one could see, except in the north, where it was bounded by the chain of mountains, though the latter disappeared a little further on, probably owing to its turning north. A few paotai straight in front of us, i.e., to the east, a single mountain with two peaks rose up unexpectedly in the middle of the plain. The road turns more and more to the NE, winding constantly in order to make its way between marshy places and the river Kashgar darya north of the road. The steppe is overgrown with reeds in the lower, damp places, in others with a knotty bush called »djulgun» and in some parts with grass. Here and there you see a solitary farm with its few mud huts shaded by a few trees. A couple of herds of about 100 sheep each were grazing along the road. On the left we saw a bog covered with ice, a little later the right side of the road was like a morass and covered with reeds. After riding another half-hour across the plain we reached two tumbledown sheds, obviously built to harbour travellers and separated from each other by a slight depression in the ground. An hour later we crossed a bridge over the Chabaklik üstang that flows southward from the river to the north of the road. Next to the bridge stands a lonely house. The buildings become less scattered, the fields larger.

A quarter of an hour's ride from the bridge lies the village of Dungmälä, consisting of 5 or 6 houses and immediately beyond we rode through the village of Shaku of about the same size and with about 100 mou of tilled land. The houses appear to be even worse than in the districts already traversed. The unbaked bricks and lumps of earth are often replaced as building material by a lattice-work of rushes and young trees covered with clay. In many cases the clay has crumbled and the wind can make merry under the correspondingly rickety roof. The houses in the villages seem to have less connection with each other than in other parts of Chinese Turkestan. The fields are level, well tilled and beautiful. The cattle, especially horned cattle, are more numerous than elsewhere. The inhabitants make butter some of which is consumed on the spot and some sold to Kashgar. The population consists of Dolans or "Tulans» as they pronounce it. They grow wheat

## RECORDS OF THE JOURNEY


and maize, very little cotton. Wheat yields a $12-15$ fold crop, maize as much as 100 120 fold. Snow falls up to 3 cm , but usually melts in 2 or 3 days. Rain falls 4 or 5 times in the spring for 2 or 3 days at a time. Burans occur 5 or 6 times a year from the NNE in spring and autumn. (These particulars refer to the village of Shaku).

Barely an hour later we reached the fortress of Maral Bashi. The road leads past it to the Sart town beyond. Although it was a bazaar day, there was no difficulty in making our way along the very long bazaar street. A couple of storytellers with expressive features and lively gestures had collected a few dozen lazy listeners round them. The bakers and sellers of bread brought a little life into the somnolent crowd in the bazaar by offering their wares with loud cries. The shops or stands are very modest with one or two exceptions. The Dolan women go unveiled, though here, too, they try to avoid the polluting glances of the sahib. In addition to a cap many of them wear a hankerchief on their heads like the peasant women in Russia. Both Russian and Indian goods were exhibited, though far more of the former.

Yesterday the mandarin did not send me his card in reply to the one 1 sent as soon as I arrived. As, however, I require a guide and a couple of horses, which are practically unobtainable without the help of the yamen, I decided to pretend not to notice the omission and to pay him a visit to-day. But Ljo found the door closed and was told that the mandarin had left for Yarkand. This, however, does not appear to be the case. Ljo explains the matter by the near approach of the Chinese New Year. Apparently, Ljo says, the mandarin does not want to deal with any documents during the three days that are left before New Year. I made a tour of the surroundings of the town and came across some Dolans. They seem to be taller than the Sarts, neater and better dressed. The latter circumstance is probably due to better financial conditions. The cheek-bones are fairly prominent, but their faces are far from ugly. Their hands and feet are well shaped, their fingers long and narrow, the second toe is longer than

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## The southern

 gate of Maral Bashi.the big toc. They are in good condition, being sufficiently fed. They seem to be shyer than the Sarts, which is not surprising, seeing that not so long ago they led a semi-nomadic life, using a kind of hut made of branches instead of houses. Apparently the example of some Sarts, who found their way here more recently, first taught them to build proper houses. Now it is only shepherds, who live in the "jilga» (their grazing grounds) in huts. There are fair numbers of cattle. Almost everyone has about ten cows, but the herds of many of the men number hundreds of horses, cows and sheep that graze all the year round in the „jilga».

Maral Bashi is really a small Chinese fortress, built to guard the crossroads to Kashgar and Yarkand. As is often the case, a Sart bazaar street, about a mile long, has grown up near it, round which many merchants' houses, a few sarais etc. have grouped themselves. This Sart part of the town has crept up to the eastern wall of the fortress, partly branching off northward and connected with a village on the Kashgar darya to the immediate north of the town. The esplanade of the fortress, which would otherwise be good, is, in consequence, rather hedged in by the Sart part of the town on the east. The moat is not kept in repair and the walls also look uncared for. The fortress, a square of about 190 fathoms along each side, has gates on the $\mathrm{E}, \mathrm{S}$ and W , screened by buttresses. The corners consist of round buildings, on which clay turrets are erected. There is no protected area outside the walls. The walls are of brick, about $3 \mathrm{I} / 2$ fathoms high, with a crenellated parapet on top provided with loopholes. Within the wall is the yamen, approximately in the centre of the northern half of the square, surrounded by three mud walls, not intended for defence, that project from the northern wall of the fortress. In the NW corner stand the barracks of an infantry battalion with two mud walls, projecting from the $N$ and $W$ walls of the fortress, also not intended for defensive purposes. A bazaar street with a few houses leads from the eastern gate of the town westward, though it does not extend as far as the western wall. Along it and especially along the south wall there are fairly large uninhabited areas.

Courtyard of a sara with animals at Maral Bash.


In the SW corner is a Government building with mud walls. Next to it the granary and quite close to the latter a water reservoir. Opposite the yamen behind (south of) the bazaar buildings a temple with mud walls. - The Maral Bashi district has 6 Begs, one of them for the Dolans and i for the Sars in the bazaar and town. There are said to be only about 700 houses belonging to Dolans, while the Sars, who only immigrated during the last few years, have as many as 8000 houses.

During the day I made some more anthropological measurements and took photographs. The Dolans are fairer than the Sars and have much smaller beards, -- The village of Nov contains 50 houses with 3,000 mon of land, about 60 horses, 300 cows and oxen, 3,000 sheep. A mon is sown with 10 dsj of I th of wheat and yields $5-6$ tcheraks; 5 dsj. of maize yield to tcheraks. - Another Dolan village near Maral Bashi has 25 houses, about 25 horses, 10 cows and oxen and 1,000 sheep.

Wishing to avoid the well-known road from Maral Bashi to Aqsu, I decided to take a caravan route, on which there is little traffic, northward through the village Camp a of Achal to Kelpin and thence to Uh Turfan. The absence of water on the way Duvanta from Maral Bashi to Achal was no serious obstacle, as the horses could go without ajage d) water for a day and a half and the snow that still lay in places gave us hope that we could mix some snow with their hay. Ljo was sent with the arbah and all the things we did not require by the highroad to Aqsu, and with the others, loading the kitchen and tent on to 3 pack-horses, I started today at 7 a.m. accompanied by Rakhimjanoff, the cook and the so-called laot'rr. The sky was grey and cloudy and a fresh N wind made us turn up our fur collars over our ears. The road turns north from the
bazaar strect along a lane and immediately beyond a bad bridge leads across the Kashgar darya, about 20 fathoms wide at this place (there is a good bridge further west, due north of the fortress). For a time the road goes through a part of the town built on the near side of the river, occasionally skirting the river that winds to the right at a short distance from it. In about 20 minutes the town gives way to single houses, fairly close to each other, which gradually grow rarer and finally cease altogether. To the east, on the other side of the river, stands the mountain with two peaks, an excellent landmark, and between it and the river, long after the buildings have ceased, you still see a row of farms with planted trees. In the N or rather the NW we once more found our faithful companion of the last few days, the chain of mountains north of the road from Faizabad to Maral Bashi. It makes a sharp bend here and goes on northward parallel to the road. Between it and the road stretches a sandy plain, level in places, but mostly in small hillocks, or rather mounds, overgrown with "toghraq". Between the road and the river this plain is still cultivated for a good distance and we passed a couple of clay sheds until, about an hour from the town, we crossed the last ariq and the plain definitely took on a desolate character. For about an hour the sandy mounds covered with "toghraq" are fairly.considerable. The numbers of lifeless, withered trees on this plain, where no new shoots are visible, indicate that in the past the conditions of vegetation were different from the present. The ground grows more level with a crust on its surface that often gives way under the horses' hoofs with a slight crackle. "Toghraq" is rare here, but is replaced by a low bush „zakzak» and a creeping plant »shapa». In some places white patches appear on the salty surface of the ground. Due north the road is crossed by a mountain divided into two that seems to rest against the mountain in the $W$, here called Kyryztagh by the Dolans and Kumatlag tagh by the Sarts. In the middle of this mountain in the N , called Beltagh (waist mountain) there is a kind of gateway hewn for the road. On the other side of the Beltagh the road again enters an absolutely level, almost triangular plain, bounded on three sides by the mountains Kumatlag tagh in the W , Beltagh in the S and Laltagh, often descending vertically, in the N with more or less broad passages between them. This plain, which is called Ikitagh urtasi djengal, is almost entirely covered with sandy hillocks overgrown with "zakzak" and "shapa". In the northern half of the plain a slight depression is visible parallel to the Kumatlag tagh and i mile to a mile and a half E of it. There is an elevation, a kind of low sarthwork along the foot of the Beltagh. The local people say that it is the remains of an ariq. A stone, hewn into a circular shape, was found here and removed. It is supposed to have been a millstone. In many places in this plain there are numerous fragments of clay vessels, stone sherds, slag etc. In some places there are only a few pieces, in others so many that they are visible at a considerable distance. On some mounds old wooden poles can be seen, some of which bear the marks of having been chopped with an axe; on one, remains of straw could be seen sticking out of the ground. About halfway between the Laltagh and Beltagh, almost in a line northward from the gateway in the latter, there is an elevation like the ruins of an earthwork. Near it there are some mounds with many pieces of clay vessels. My guide said that he had been told by old inhabitants that a river used to flow along the Kumatlag tagh and
that a Chinese or Kalmuk village stood on this plain. There can be no doubt about dwellings having stood here at one time, but when?

Almost in a straight line northward from the wgateway in the Beltagh the guide pointed out a Chinese paotai post on the summit of the vertical Laltagh. It must be of goodly proportions to be visible across about 10 miles of the plain. It is supposed to date from the time when this was a tilled area and the high-road to Aqsu passed along here. When I reached the foot of the mountain after a ride of 3 hours and examined the ineresting old post through my glasses, I came to the conclusion that it was not the work of human hands, but one of those whimsical, inexplicable shapes that the mountains assume here sometimes owing to their weathering. The likeness to a paotai post with its steps was so surprising that I tried to photograph it in the poor evening light at a short distance from the mountain. From this point I followed the Laltagh westward until I rejoined the road that creeps between the mountain and some rocks that rise from the plain close to it. The ground, like the foot of most of the other mountains, is covered with gravel washed or blown down from them. There is no old toghraq visible and only a very little zakzak. The road continues northward about 1 I/2-2 miles east of the Kumatlag tagh, called Duvantagh here. About an hour further on the hillocks begin again with tall, dry toghraq and without a trace of younger vegetation.

It was quite dark before we reached the edge of this \#forest zone». Some asses with maize and hay, that had been despatched from Maral Bashi on the previous day, but had arrived after the caravan, awaited my arrival. The caravan had gone farther than I had instructed it to go and it took another couple of hours for it to return. We pitched our camp at the foot of one of these sandy mounds round a good fire of dry toghraq. Some bits of ice that we had brought provided very dirty water, but in sufficient quantity to make tea and after riding for $111 / 2$ hours, we washed down our meal of a little frozen mutton and bread with it cagerly enough. Our faithful companions, the horses, were treated shabbily and had to content themselves with some dry fodder, for there was no sign of snow in these parts.

The morning was so cold that there was no risk of anyone oversleeping. There was no water to wash with. A cup of tea with dregs of coffee at the bottom, a piece of bread, and we were off again soon after seven. The road goes NE parallel to yesterday's mountain ridge, Kumatlag tagh, that goes by a string of names to-day: Duvantagh, Kuzlag, Konekan and Parsh tagh, across a plain that seems interminable. On the right there is a broad band of sandy hillocks, with toghraq growing on them, and further east this is replaced by a white band of salty ground ("shăw, as the population calls these places, where the salt settles on the surface), beyond which sandy hillocks with their meagre vegetation, looking like a thin wood on the horizon, are again visible. The ground that slopes towards the road from the mountains about a mile and a half away, contains a lot of gravel. In some places this layer of gravel is of such a dark green colour that it gives the impression of being a grassy slope. Other places have a reddishmauve tinge. The toghraq is supplanted by its inseparable companion mzakzak», but other-
wise there is no vegetation. During these two days I saw no sign of animal life except two small birds with black, white and yellow plumage and yesterday at a great distance a wild boar. The tracks of these latter seem to be rare here. There is a very slight, scarcely perceptible undulation in the ground, the crests starting from the chain of mountains at intervals of $11 / 2$ to $21 / 2$ miles. The road converges slightly on the mountain and by the time darkness fell, when the latter definitely turned NW, they were not more than 300 yards apart.

After riding incessantly for over in hours in grey and chilly weather we reached the Ja darya, flowing eastward from Kelpin, about 6.30 p.m. and immediately afterwards one of the southernmost farms in the village of Achal. During these two days the road was excellent along these plains, on which scarcely any change of level is noticeable. Although the sand is rather deep in some parts, it would be an excellent road for wheeled traffic, if only there were some water. From Achal situated on the road from Kelpin to the highway from Aqsu to Kashgar, you can reach Aqsu at a normal pace in 4 days, so that you gain two days from Maral Bashi by this road. Chilan on the Aqsu highway is about 6 paotai from Achal. The village was founded about 25 years ago. Although it has an area of about $5,000 \mathrm{mou}$ of fields, there are only about 40 houses. The water shortage, and the poor quality of the soil and its salt content only allow of part of the area being tilled annually. Wheat yields up to a io fold crop, corn up to 8 and io fold. Maize is not grown, but melons are. The livestock averages about $1 / 4$ horse, I I/2 cow, 2 asses and $5-6$ sheep per household of about 3 adults. 3 burans in the spring, $I$ in the autumn. We all slept in a large room with wooden pillars or poles, in which the wind roared, but after a night in the open it seemed quite comfortable.

February ${ }^{2}$ th. To check the last piece of yesterday's map, which I had drawn in the dark, I Kelpin village. retraced my steps to the spot where the road crosses the road from Kelpin over Jaidedigan langer ( 13 houses) to Chilean and then took this road. On the right, ie., on the N and NW, lies an enormous mass of mountains, Inyang tagh, which appears at first to take a direction from NE to SW, but gradually assumes a more and more westerly direction and runs practically parallel to our road today, a few miles north of it. Quite close to the village the sandy hillocks and toghraq begin. For a couple of hours they are so high that they prevent your seeing the lie of the land except between them. A quarter of an hour from the village we crossed the frozen Ja darya, about 5 fathoms broad at this place, coming from Kelpin and winding in a deep bed with steep banks. The water is said to be slightly salt. After heavy rain it may be difficult to ford for two or three days.

In half-an-hour we reached the Kelpin road, turned sharp to the west and continued WSW against a penetrating wind and in grey, chilly weather. On the left we had yesterday's mountains that had also taken a westerly direction and now ran fairly parallel to our road, though much nearer than the mountains in the N . They were lower here than in their $\mathrm{S}-\mathrm{N}$ direction and seemed to be broken up into several ridges. Another half-hour and the road led us past a series of green sandy hillocks, covered with the same greenish gravel that I noticed yesterday. As they are a good distance from the chain of mountains
and rise high above the level of the land, this gravel can hardly have been brought down from the mountains. It is curious that on a closer examination you do not find any stones that are actually green. The toghraq disappears from these sandy knolls to the west of the road. The latter makes a bend round the foot of an outrunner of the southern mountains. On its slope we passed a small ruin with remains of 3 walls on the summit of a mound of sand $36 \times 24$ feet at the base. The walls are $6 \times 4$ feet long and look like the remains of a small tower or a large landmark. Immediately afterwards we had on the left a small marsh "Karys" with a thick layer of salt on the surface. On the edge of the marsh we came again to the Ja darya, the southern bank of which is marshy in places. For a time the road goes along the steep right bank of the river. Half-an-hour after leaving the river the road shakes off another much more unpleasant companion, the sandy hillocks with their toghraq. Their line takes a rather more NW direction and the road now proceeds over an open plain with a slight rise. The southern mountain draws nearer and nearer to the road until at a distance of no more than about $1 / 3$ of a mile the mountains take a more southerly course and the whole valley, including the northern mountain ridge, seems to wheel to the SW. The plain slopes gradually in a westerly direction. We passed a very modest "metchet» in the desolate sandy plain and a little later once more crossed the Ja darya that comes from the SSW with very little water here. The bed of the river is 120 - 150 fathoms broad at this point and makes numerous bends. On the other side of the river the sand is heavier and rolls in a SSW-NNE direction. Three-quarters of an hour from the river we again passed a small ruin, two parallel hillocks, one of which had distinct traces of a large wall with several divisions into small rooms. Some fragments of clay vessels and bits of bones could be seen on the surface. In two places there were signs of recent excavations (not deep), possibly made with a view to using the earth as a fertiliser. Its solitary position, near the river and slightly above the rest of the ground, indicates that there was once a small citadel here. - The northern chain of mountains rises in front of us and now seems to go from NNE to SSW. At its foot a long line of villages with trees appears, divided into two main groups. Between them lie the bazaar and the official residence of the Chinese mandarin with some well-kept Chinese buildings. As it was still long before sunset and still longer before dinner would be ready, I resolved to ride out at once to the ruins of what the population claims to be an ancient city SW of the village.

The road to the ruins leads through the SW group of villages - the main group. Just behind the bazaar it descends the steep bank of a very large river bed, dry at present and covered with pebbles, the Qizil, which flows from a large cleft in the mountains in the north. A few miles from the mountains the river bed, about $11 / 2$ miles wide, divides into two arms that encircle a strip of land about a mile wide, on the northern point of which there is a small ruin with remains of walls. No objects of interest are to be seen, nor have any been found by the local population. The western group of Kelpin begins as soon as you have crossed the other arm of the river. The neat houses of this main section, surrounded by trees, are arranged in several groups with open fields, mazars etc. between

Februa Kelpin


A ruin at the outlet of the Qizil darya from the mountains; from the southeast.
them. It takes almost an hour to ride through the village and reach a road leading along a ravine that runs into the bed of a smaller river flowing in a deep channel from the moontains. On the opposite bank of the river three fairly well preserved walls are to be seen. The fourth, along the river, which presses against the bank here, has disappeared owing to a landslide. The walls are in a NW -SE direction. Their length is 110,170 and 246 paces. In the centre is a rectangular pond-like depression, probably a water reservoir. On either side of it are two mounds of earth, one of them of appreciable size. In the middle of the SE wall there is a $6 \times 6$ foot turret-like projection. Along the southern part of the SW wall are a large number of transverse walls that divide the area into several rooms, most of them very small, though a couple are larger. In the NW corner a kind of turret juts out. In the NE, and especially in the SE there are many remains of small square rooms. In the SW wall there are a couple of hollows like the open fireplaces of the Sars. The whole place resembles a barracks and it is easy to suppose that these are the ruins of an old fortress. Along the SW wall is a moat-like depression. A deep ravine has formed round all the three walls. Its dominating position on the high bank of the river contributes a good deal towards this. SW of the ruin the cultivated land comes to an end and you enter a white sandy plain, sand as far as you can see. For a distance of about $2 / 3$ of a mile square I saw many fragments of clay vessels, bits of bone and slag. The digging that $I$ had done in three places to a depth of $1-11 / 2$ metres yielded no result but bones, slag and pieces of clay vessels. The latter were rough in quality, red and black, some of them indicating vessels of large size. No ornamentation and no colouring. No skulls were discovered and I cannot say whether the bones were those of human beings or animals. The greater part were much decayed. - Inside the ruin I had $11 / 2$ metre sections made in 6 or 7 places and dug up the larger mound of earth. I did not dig deeper, as everything pointed

to the fact that the buildings had stood above the present surface of the ground which had not been raised in the course of time, but rather the reverse. Nothing was discovered but some half-decayed straw, some wooden pegs, half of a slightly hollowed-out board, a couple of pieces of wood connected by a peg (probably part of a handle), a piece of coarse cloth, a bit of rope, a piece of a tile, some fragments of clay vessels and half-decayed bones. The population says that a Kalmuk town stood here, and there is no other information to be had. I am inclined to conclude that there was a concentration of houses on the plain formed under the walls of the fortress or, on the other hand, that, in order to command the valley of the river, the fortress had two small projecting citadels at the fork of the river and a little lower down. As I have little hope of achieving better results and am pressed for time, I have decided to abandon further digging.

The population is friendly, talkative and merry. The men shave their chins and wear their beards like a fringe framing the jaw. The village, unlike that of the Sarts, is for the most part closely built with a lot of streets. The houses are by no means rich, but outwardly tidy and surrounded by plenty of fruit-trees. No beggars are to be seen and there seem to be none. About 300 houses are considered to be rich with about 100 mou of field $50-60$ cows, 10 horses, $15-16$ camels and $1-2,000$ sheep each. Altogether the village has about 1,000 houses, about 10,000 mou of fields, $300-400$ horses, 1,500 cows and oxen, 2,000 asses and 20,000 sheep. There are about 5 people to a household. They grow wheat, maize, millet and cotton that yield a $12-20$, $50-320$ and 320 fold crop and 4 tcheraks of cotton to 1 tcherak of seed. Cotton is sold as raw material at 3 r. 20 c. per tcherak and as cloth at 8 arshins for 40 c . - Three burans in spring and usually 1 in autumn lasting a day or 24 hours each in the direction from E or SW. - From Kelpin two roads go to Uch Turfan ( $2-3$ days each, one crossing a mountain), and one to Chilan.

- The inhabitants buy rice from Aqsu, cloth from Kashgar and sell cotton. There is a shortage of water and in some places the ground contains salt.

The Chinese yamen with its life regulated down to the smallest detail makes a curious impression in this remote village. At fixed times cannon are fired to mark sunrise and sunset, the closing of the town gates in this place, where there are none, and so on. Besides Kelpin the mandarin governs several Kirghiz tribes. These are: Hitaman of $90-100$ kibitkas, Satkulo of 130 kibitkas and Chura of 90 . Some of them carry on a little agriculture, the rest devoting themselves solely to brecding cattle. There are two Begs for the Sarts in Kelpin and 3 for the Kirghiz. I arrived on Chinese New Year's Day. The yamen was decorated with a triumphal arch leaning against the gateway. The Begs, Sarts and Kirghiz were arrayed in their picturesque caps, shaped like sugar-loaves. In return for my visiting card I received the mandarin's, delivered, in spite of the holiday, with many oily expressions of politeness. This evening he sent me word that he would see me to-morrow before I left in order to dissuade me from taking the road over Uch Turfan, which is difficult at this season. This will delay my start, but as I cannot obtain horses without his aid, it cannot be helped.

February 14th. The mandarin's visit, my return visit and, above all, the dilatoriness of his people, Campat when they were to let me have the promised pack-horses, delayed my departure, so Saizam. that I did not get away until after io. Instead of the horses, which never appeared, I hired 3 camels that could easily carry our stores in addition to maize and hay for 4 days and 3 nights. This late start made me decide to take the other road, so that our first camp was no more than iI-I2 miles from Kelpin. I made a détour of a few miles and rode NW along the dry bed of the Qizil to the gorge about 7 miles from the bazaar, from which the water of the river once flowed. I had been told at the last moment that there was an old Kalmuk ruin there, too. On the extreme point of the mountain on either side of the mouth of the gorge lie the ruins of what were probably two forts, built to defend this narrow pass. The one on the south, in particular, is comparatively well preserved. It looks like the medieval castle of a robber chieftain, its walls of unbaked bricks rising in several tiers on the ledges of the rock. Of the highest part, i- ilt on the summit of the rock, incomplete remains of the walls are left, while the wall immediately below is fairly well preserved and forms a large cube, the holes in which have been filled by the crumbling pieces of the upper part. Very little remains of the walls of the more advanced parts of the fort, and of the parts built at the foot of the cliff. The climb was very steep. There were pieces of clay vessels here and there. In some places it looked as though excavations had been made on a small scale, though it was difficult to judge. The holes in the walls, which look like windows and gates, might easily have been due to crumbling. If my caravan had not already pitched camp, I would have stayed here a day or two and done some digging. However, it was essential to get back to camp before dark to avoid any interruption of my mapping. I was only able to take a couple of photographs and make a plan of the southern fort. I only took one photograph of the northern fort, at the foot of which a Mohammedan mazar had been made.

Inside the gorge on the edge of the river there is a small Chinese guard-house abandoned a few years ago, with its pedantically precise crenellated walls. We rode along the foot of the Kelpin tagh in brilliant sunshine, real spring weather, to the NNE without any road across the extremely broad bed of the river. It was only after we had ridden for 40 minutes that the layer of gravel began to change to sand, no distinct boundary being visible between the bank and the bed of the river. After a not particularly wide band of tilled land we came to a slight slope, also covered with gravel. We continued a prolonged and gradual ascent, now and then crossing a shallow channel, cut by the water coming down from the mountains. In the distance we saw a clump of trees among some sandy hillocks. We reached these hillocks a couple of hours later. On one of them there is a mazar and at a short distance, as if embedded in the sandy hillocks, a small clump of venerable trees and some tilled fields. Next to it is a small shed, $6 \times 6$ paces, and so low that I could not stand upright in it. The smoke-begrimed roof showed that many had gladly availed themselves of the slight comfort it afforded. A murmuring little stream with crystal-clear water, a great rarity here, is, perhaps, more highly prized than the shed by the caravans calling here. Our new travelling companion, a dog I had bought in Kelpin, was tied to a tree to accustom him to his new surroundings, Izmail got busy with the soup and each of us others set about his appointed task in the work of the caravan.

I rode off at $7.30 \mathrm{a} . \mathrm{m}$., followed half-an-hour later by the caravan. The weather was sunny and warm. Once the sandy hillocks, near which we had spent the night, were behind us, we travelled for quite 1 I/2 hours over a plain consisting of coarse sand mixed with gravel; it led us along a gradual ascent almost due north towards the mighty mountain ridge of yesterday. At a considerable distance in the north there was another enormous mountain range, Atjalik tagh, that seemed to extend from N to S . The road took us down into the flat bed of the Tonquz burun jilga, in following which it turned to the west between two giant mountains belonging to the Aqtagh though the part that lies north of the river is called Tonquz burun tagh. This gorge with its steep walls of rock debouched in $\mathrm{I} / 4$ of an hour into a small valley with bushes and grass. In the gorge we passed the ruins of a small square building, probably put up at some time as a guard-post. The walls were of stone. At the gorge we left behind us a narrow, icecovered rill of water, that came from the south along the valley. Our road wound westward among several mountains and hills and soon after turned sharply to the south along a mountain corridor, that might have been specially made for it, up to a low pass and down again to the valley of the river Terek avat. On the right (west) behind the nearest hills we had a very high mountain ridge, Terek tagh. Along the road we noticed a certain amount of vegetation in the shape of bushes and grassy knolls. The people of Kelpin send their camels here to graze. A few strips of field are tilled in the Terek avat valley and a couple of sheds are put up, presumably the summer quarters of the Sarts, who go in for agriculture. The caravans that come from Kelpin through the gorge of the river Qizil, usually halt here. For quite an hour our road went along the river Terek avat that flows in a gorge between two colossal mountain ranges. The gorge is very beautiful with


[^3]its grand, wild scenery. On either side of the river bed, $10-30$ fathoms broad, overwhelmingly high mountains rise perpendicularly almost without a break, at times nearly closing in above our heads. There is very little water in the river which is covered just now by a crust of ice and a thin layer of snow. The river winds in a thousand turnings among the mountains, making mapping extremely dfficult. The main direction, however, is westerly.

In one place, called Jambu tash, I was shown "a Kalmuk inscription" a few fathoms from the ground. According to popular tradition, a treasure lies hidden here. The search for it had, of course, been fruitless. It was impossible to climb up to the place along the perpendicular wall of rock, but I studied the minscription" through my field-glasses and there was absolutely nothing there, but a circular spot on the mountain side.

When we finaily left the Terek avat valley, we followed another river bed, Tchegenung sui su, which also flows along a gorge for the greater part of its length, though this gorge is much less grand than the former one. There is usually water in the first two rivers and after heavy rain they become so swollen that they can impede traffic for $\mathrm{I}-3$ days. In the latter and in the Aitike channel there is no water except after rain. At the worst they could only present an obstacle to a caravan for a day. The bed of the water varies here from roo to 75 fathoms. The larger chains of mountains run at some distance from the banks, leaving room close to them for smaller mountains and high hillocks of sand and gravel that seem to follow no regular sequence. The ascent had become far steeper than before and continued steadily. The vegetation is very meagre, only a grassy hummock now and then. In about an hour and a half the river bed divides into two arms. We took the eastern one that still ran almost due north. Very soon the road led up the western and comparatively high bank of this arm, along which we followed the course of the river for a considerable time, either descending into the bed or climbing the mountainous bank

## The bed of the wiver Terek acat between

Kilpin and Uch Turfan.

again. At last we left this valley and wandered for a time from the foot of one monntain to another until we again got into a very narrow rain channel that had cut its way deep among the rocks and mountains. The mountains had again bcoome orerwhelmingly large, raising their walls a couple of fathoms from cach other. In some places the rocks overhanging our heads assumed the most fantastic shapes. Here and there the piles of rock were so close together and in such chaotic disorder that the horses wormed their way between them like snakes. Frequently we had to lift our legs to aroid grazing them on the rocks. Intentionally we had long ago left behind us the two places where caravans usually stop, and had ridden a couple of paotai further than we had agreed in order to teach some kibitkas which, according to the statement of the only caratan we had met, had camped further along our road.

Darkness fell and forced me to give up map drawing after marking the place to which I must return to-morrow. We pressed on with our tired beasts which husted along the narrow way, where a false step might be disastrous. At last the gorge grew wider and some low trees and tallish bushes indicated that the Kirghiz could not be far off. Immediately afterwards the barking of a dog was heard and shouts of joy went up. We were there. Two kibitkas, surrounded by large numbers of catte, camels and sheep, stood on the steep slope of a high mountain. I peeped into one of them, from which a fire shone. Kound a kettle over the fire in the middle of the circular tent, about 8 -o o paces in diameter, sat


Crossing the Belnyng Tupese pass.

3 women, 3 children and 3 men; a tiny person lay crying in a cradle behind, and round about, filling half the tent, were 30 or 40 sheep. The other kibitka was still less inviting. My entrance was not welcomed with cries of delight, as I had expected, but an old woman yelled something unintelligible that sounded like abuse. The mountains were shrouded in heavy leaden clouds and snow had been falling for some time. There was nothing for it, but to resign ourselves to a corner among the sheep and make ourselves as comfortable as we could. Unfortunately, we had not enough bread and meat to "treaty our hosts, a poor and old Kirghiz shepherd and his family, of the Kuchi tribe. They did not disguise their delight in accepting a couple of loaves and some sugar. Evidently they would have welcomed some meat, for they got busy with the bones that had fallen on the ground in the kibitka. Poor people, they lead no easy life up in the mountains with no water but melted snow and a little fuel in the shape of bushes that grow here and there. Most of the cattle they herd does not belong to them, but to the people in Kelpin.

February I6th. I spent rather an original night. There were 12 grown-up people, 4 children Camp in the and about 40 sheep under one roof. It was such a tight fit that you could not stretch Käkyr valley. out your legs, and I had two heads on the fur that I had thrown over my blanket, one of the children's and, I fancy, the other the old woman's - I must confess that I had no wish to turn down my fur and see who it was. Once someone pushed my

head and pillow aside with scant ceremony to make room for a lamb that was uncomfortable or was getting squashed. All this to the accompaniment of a yelling child and bleating sheep would have been enough to rob most people of their sleep. However, our ride of II I/2 hours enabled me to sleep well till 5 the next morning.

The weather was cold and cloudy. There had been a slight fall of snow since last night. The worst was that I was obliged to go back for half-an-hour along vesterday's track to resume my mapping. The camels went on ahead, while I kept a pack-horse with my instruments for making hypsometer observations on the pass that we were to cross to-day. The climb to the pass began almost immediately to the north of our camping place. The slope was very steep and the horses must have felt the strain of carrying us up the zigzag path. During the climb we met some Kirghiz with 2 horses and 2 camels on their way south from Uch Turfan. It was no easy task for us to get by each other on the steep slope. The pass consists of 3 ridges or passes that you cross in succession. The third is the highest and is the actual Belnyng Tupese dawan. According to my aneroids the absolute height is between 2,850 and 3,000 metres. The weather had cleared and one delightful view succeeded another. The descent was rather less steep than the way up. During it we had again to follow a wild gorge in the rocks, very narrow, just giving room enough for a horse and with two perpendicular walls that seemed to tower into the sky. The slope down the Qoptchak Aj gorge is very steep. No water channel is visible. Soon after leaving the Qoptchak Aj gorge the road debouches into another dry river bed, Kuk kat, much broader and with banks that are not particularly high. At some distance, however, it is accompanied by high mountains on either side, of which those on the west, in particular, are of imposing height and size. Fuel is obtainable along both these gorges. The lower heights nearest to the river disappear and the road debouches into a long valley; about 2 miles at its widest, Käkyr. On the $E$ and $W$ the valley is enclosed by the chains of
mountains just mentioned, the western one being called Qizil tanh, the eastern Berber tagh. The slope falls away to the north and tufts of grass grow on it. In the summer the pasture is said to be good. Kirghiz cattle are seen in various places.

We steered a slanting course across the plain to a Kirghiz camp of 7 yurts put up at the foot of the beautiful mountains of Qizil tagh. This time our reception was much better, the yurts were richer and tidier. The camp belonged to Kirghiz of the Torgute-Kuchi tribe. The women in their tall white headdress would hide at first and then let their curiosity gain the upper hand and would venture out to have a look at the strange sahib. Our yurt contains over 50 lambs and small goats, but it is larger and much tidier than yesterday's. Perphaps it is not so bad to have the charming little animals inside the yurt for there are over 15 degrees of frost outside and it is difficult to keep warm. The little heat produced by the fire in the middle of the yurt escapes mostly through a big hole in the roof.

In the evening the sheep, horses and camels returned to the camp, where they settled down under the protection of two fierce dogs. The bleating was indescribable until the careful Kirghiz women let the lambs join their mothers, after which they were brought into the yurt again one by one to protect them from the cold of the night. Long-legged young camels milked their mothers in a comic attitude and the male parent flirted just as comically with his better half, displaying the two long teeth in his lower jaw in amazed delight over his success, which, if you looked at him closely, certainly was surprising not only to himself, but to any one else. The Kirghiz fetched snow in sacks and melted it in large pots over the fire. From one yurt came the sound of soft music played on a very primitive kind of Kirghiz guitar with three strings - a curiously monotonous melody that we could hear indistinctly in our yurt and that went on far into the night, only interrusted from time to time by the bleating of a stray sheep.

February ${ }^{17}$ th. $\quad$ Yesterday was full of sensational events in the quiet Kirghiz camp. First, my unixOch Turfan. pected arrival, later the return of two successful hunters with a wkiyik» they had shot. Everyone turned out to view the bag. It was amusing to see the pride of the hunters. One, in particular, a thin old Kirghiz with a wrinkled face like a roasted apple, was worth seeing, when with a grand gesture he pointed to himself as the one to whom the animal had fallen. His smile was, no doubt, intended to be modest, but it was so full of self-satisfaction that it was impossible to keep serious. The other had had to carry the animal home and had tied it on to his back with two legs round his waist and two round his neck. At first I took it for a fur he was wearing and looked in vain for the wild goat. The head had been cut off and thrown away to reduce the weight. The men wore soft boots, like ski-ing boots, fastened to their legs by a string wound round the ankles. Their short sheepskin coats were fastened by a belt, on to which all kinds of hunting gear was fastened and into which they had stuck the ends of their furs. A hollowed-out point of a horn with fat for greasing their guns, a pouch for a couple of bullets, another for powder (?) and the usual knife, comb etc. of the Sarts, were suspended from the belt. On their heads they wore the Kirghiz sugar loaf fur cap and on their backs they carried a gun that is worth describing. The barrel is massive and heavy with straight rifling reminiscent of old muskets.


They use no percussion caps, but powder ignited by a long wick drawn through the hammer, the unused part being kept in a leather pocket fastened to the outside of the buttend. A leather cover is also placed over the powder and removed at the critical moment. The hammer has no spring, the trigger working the hammer direct, so that the latter drops in proportion to the pressure on the trigger. The butt is small and as flat as a board. A forked stand, made of two crooked branches, is fixed to the front end of the wooden part of the gun and is folded along the barrel, when not in use, sticking out some distance beyond the end of the barrel. The professional marksmen earn their living with such antediluvian weapons. The hero of the day said that he shot 40 or 50 kiyiks a year, a very respectable figure, if you consider how shy these animals are. In the southern part of Chinese Turkestan the guns were of the same kind as here; in the Maral Basho district hammers with springs and percussion caps have been adopted. The hunt is based mainly on a thorough knowledge of the ground and the habits of the game. As a rule the hunters lie in hiding on the plain, where there is a lot of grass or where the animals come to drink and so on. When there are several hunters, a couple of them round up the kiyiks, while one or two others lie in readiness on the opposite side.

It was a bright and warm morning, when we mounted at 7.30 to continue our journey. The Kirghiz camp looked very jolly, with about twenty camels, some dogs and plump sheep of different colours not yet led out to graze. The long valley with its imposing walls of mountain was wonderful in the morning light. We set off in advance with the cook and a pack-horse. I was more than usually anxious to keep an eye on him today, as I was afraid that the sheepskin coats of the rosy-cheeked Kirghiz women would not be strong enough armour to protect their hearts against the gaiety and attractive looks of my cook.

On the summit of the high and inaccessible Berber mountain across the valley opposite
their camp the Kirghiz showed me a place, where, according to tradition, a Kalmuk tuwn once stood. To judge by the description it is only the strange shapes of some rocks, visible through glasses, that have given rise to this legend. They also told me that in the Qara Teke mountains, at a place called Tscal Kode, 1 or 2 days' journey from Uch Turfan, there were two stones, about i metre in height, with the indistinct outline of a head (nose and eycbrows). Apparently they meant that the stones were not carved, but had been shaped by nature. They are a place of pilgrimage among the Kirghiz, who come there to pray, to sacrifice sheep etc. One of the stones stands in such an inaccessible spot that it cannot be approached, but the other can be reached. The higher stone is called *kazata" (the father), the lower one that looks as though it were holding a child in its arms, muagyzana" (the mother). The road is difficult and leads over a high mountain. According to the legend they are two holy men who, fleeing from the Chinese, prayed God to turn them into stone. At present the snow prevents one from getting there.

The journey to-day was chiefly along the Käkyr valley which, while sloping distinctly to the NE, gradually grows narrower between the two slightly converging mountain chains. They approach each other by degrees until the distance between them has been reduced to about $2 / 3$ of a mile, whereupon they again begin to separate, leaving space next to the banks of the river bed for lower hills, and finally, where the valley debouches into the large valley of Uch Turfan, make a a sharp turn to the W and E and melt into the mountains that form the southern wall of that valley. The road winds mostly along the foot of the western chain of mountains, but transects the valley and the bed of the river several times and approaches its opposite bank. The valley is called Kuk kat and later Atshakutan and the chains of mountains also change their name in accordance with the valley. There are no signs of water anywhere and the river does not, apparently, obstruct traffic on this caravan route even after heavy rain. The soil is strongly mixed with gravel and stones. Kirghiz yurts were visible in a couple of places and we passed several grazing herds of sheep. The grass seems to grow in very sparsely scattered hummocks, but according to my guide there is plenty in summer. Water can be found for about 3 months after the end of the rainy season; in the winter it is replaced by snow. Fuel is obtainable in some places. The supply of hay, at any rate in winter, can only satisfy animals with very modest requirements; in summer, however, it must be better.

About half-an-hour before reaching the Uch Turfan valley we passed a Chinese picket yost on the right, with its crenellated wall. Officially it should have a garrison of 10 men, out probably a better use is found for the allotted funds, for only one Kirghiz is kept there. Here the road turns and before the mouth of the valley a mighty mountain range with inowcapped summits appears on the other side of the Uch Turfan valley. The view is vonderful at the point where our road runs into the Uch Turfan valley: a wide plain distppearing on the horizon in the SW and NE and framed between the snowcapped chain if mountains just mentioned in the N and the Qara Teke mountains in the S . From each If the mountain chains the plain slopes steeply towards the centre, where the river probbly flows among tilled fields surrounded by rows of trees planted in different directions. Ipproximately north of us lies the most eastern summit of a small chain of steep hills,

5-600 feet high, which form a beautiful contrast to their ordered surroundings. We rode down the tilled fields, which we reached in half-an-hour, and winding among houses, ariqs and fields, the road took us round the eastern part of the mountain, where it turned to the west, and in a quarter of an hour we entered the gate of Uch Turfan with its Chinese inscription. On the eastern summit of the mountain, in an inaccessible place, the ruins of an old tower, built of stone, were visible. Just behind Uch Turfan a small fortress stands on the mountain high above the town, connected with the Chinese fortress at the foot of the mountain by a crenellated mud wall. It was probably erected before Yaqub Beg's time, but was occupied by him and now by the Chinese.

Immediately beyond the town gate the Sart town and bazaar begin. A fat old Sart, whose appearance would be put down anywhere as Jewish, stopped my horse, introduced himself as the Russian aksakal and offered me the hospitality of his house. I did not wait to be asked twice and am now thoroughly enjoying being able to work in a room with two glass windows and a sheet-iron stove which gives off plenty of heat, even if it does smoke.

The road we have travelled during these four days cannot be called hard, though it is only traversable by horsemen, pack-horses and camels. It would require an enormous amount of work to make it fit for wheeled traffic and must be considered impossible.

The following are the roads from here over Kelpin to Maral Bashi:
I. Over Aqyar along the highroad Maral Bashi - Aqsu. There is water and fuel, and fodder can be bought in the villages on the route. This is the usual caravan route and usually takes 4 days, of which 2 from here to Aqyar (spending the night in a village Atshetak with a bazaar). Good road.
II. Over the Qara Teke and At Jailik mountains, a hard mountain road only used by Kirghiz, not by caravans. No water, but fuel available. A large number of mountains with narrow, dangerous paths. Takes 3 days and nights.
III. Over the Segyzkan at (or Saksganat) mountains (the way I travelled), 3-4 days and nights. Water after the rainy season for 3 months, snow in winter; a little grass; fuel. Also used by caravans.
IV. Over Arptshutshak and Gulcha Bashi on the road Uch Turfan-Kashgar; 5-6 days, of which 2-3 between Gulcha Bashi and Kelpin (I of these without water). This part of the road good, without passes in the river valleys with mountainous walls. No fuel.

Uch Turfan is the first town with beautiful scenery that I have seen in Chinese Turkestan. The whole valley is lovely, set in its frame of endless mountains, and two small groups of mountains, the one on the south and the other on the east and very close to the town, contribute considerably to its beauty. These latter inaccessible mountains with their almost perpendicular sides are particularly picturesque. Their eastern end wedges itself into the Chinese fortress at their foot, the walls and ditches of which, running in pedantically straight lines, form a striking contrast to the whimsical silhouette of the mountain. A wide zigzag road, protected by two crenellated mud walls,


## UCH TURFAN

The North side of the mountain is flanked by a corner of the fortress. West of the mountain there are areas protected against fire owing to the height and steep sides of the mountain. The citadel is connected with the fortress by a broad, zig-zag road and a parapet of clay, crenellated and provided with loopholes. On the north side this parapet extends as far as the citadel, on the south side only halfway. The parapet is placed on the edge of the almost perpendicular mountain. The crenellated wall of the citadel, of clay or brick, forms a slight curve, the centre of which faces east. The side walls are of stone. The citadel has no parapet facing the fortress. There are small buildings of clay at either end of the parapet. - Drawn by the author.
leads from inside the fortress to the small citadel on the summit of the mountain. The parapet of the citadel faces west and is built in a slight curve. The sides of the mountain are flanked by the west wall of the fortress, the middle part of which consists of the mountain. The north wall of the fortress is lengthened considerably by the wall running along the road up to the citadel. To the south and especially to the east the defences are weaker. On the latter side the citadel has no parapet. The mountain south of the town could afford an attacking enemy welcome protection. The fortress is tidy and well perserved, a moat with trees planted on either side running outside the walls. Its two gates face $E$ and $S$.

The Chinese population is small in numbers. Inside the walls there is not much more than the yamen, two barracks, the granary and a couple of temples. The whole place looks neat and well cared for. The fortress is only separated from the Sart town and bazaar on the east by its moat. The bazaar is not large. You can ride from one end of the bazaar street to the other in $5-6$ minutes. The shops are uncommonly well stocked, especially with goods from Russian Turkestan. Some of the goods come from Prjevalsk over the

Bedel pass, but the majority from Kashgar. I was particularly struck by some Russian articles of luxury, such as large cut-glass mirrors, china cups, bowls and dishes of all conceivable shapes, scented soap, glassware, enamelware etc, that I saw in several shops. Indian goods are also displayed - velvet, muslin and drugs. Here they represent only a fraction of the Russian goods, the proportion being 1 to 10.

Soon after my arrival I called on a Russian merchant, a Tartar from Kazan, living in Prjevalsk and here, where he has donc business for twenty years. He sells Russian goods to the merchants and buys principally guts and hides, 25,000 and $8-10,000$ a year respectively. The guts cost I $1 / 2$ to 2 copecks apiece and are resold by him mainly to Germany at 10 cop. apiece. He complained of the state of uncertainty in Russia, where even the Kirghiz had again begun to be restless. During his last journey he was attacked by Russian Kirghiz, robbed of 2000 roubles' worth of goods and money and left more dead than alive on the road across the mountains after being whipped. The robbers had, however, shown some humanity by placing some loaves by his side and leaving him his horse. On former occasions he had seen Russian army rifles in Kirghiz kibitkas. It felt quite strange to sit by the aksakal's excellent samovar and chat with a Russian.

The bazaar is held here on Mondays and Thursdays. I had an opportunity of seeing the former to-day. A large proportion of the customers are Kirghiz. The men's dress is the same as in Russian Turkestan. The women, however, wear a tall cylindrical white headdress which differs from the dress of the Kirghiz women in Russia. It is made by winding a white cloth several times round the head in a complicated manner, one fold passing under the chin. The unusual inquisitiveness of the population shows that the place has seldom been visited by Europeans. Owing to the proximity of the Russian frontier a European is taken for a Russian, and as you pass, you hear nuruss" whispered from mouth to mouth. Traffic and life in the bazaar are less lively than in other towns that I have visited.

Uch Turfan is the seat of a district mandarin, who governs the following Kirghiz tribes besides the Sart population: Chisak with about i,000 kibitkas, Yamansu with 250, Kuche 400 and Hassanbegtigan with 60, with about io Begs for 100 houses each. For this purpose he has 6 Sart Begs ( 2 of them for Aqyar) and four Kirghiz Begs. The military command is in the hands of a Shaitai. The troops are inspected annually by a military mandarin from Aqsu and gaps in the ranks are filled on that occasion by men hired in the bazaar. The Cherik Kirghiz inhabit the Taushqan darya, Aqchi, Qara bulaq, Qizil Gumbaz, Kiyik Tokai, Som Tash, and Kashgartchi Tokai; the Yamansu Kirghiz carry on farming in the Taushqan darya valley and Yzan Kugush; the Kuchi Kirghiz inhabit Sapervai and Qara Teke.

Yesterday was occupied by a trip to a gorge in the chain of mountains N of the town in order to photograph and copy an alleged old Kalmuk inscription on the mountain. The road, about 6 paotai in length, runs in a NW direction. We climbed the long slope of gravel and stone that leads to the mountain on the other side of the river and on which a herd of camels seemed to be flourishing on pasture that deserves the name of stone rather
than grass. At the beginning of the gorge the guide showed me with great pride an inscription in a red colour. It is about $2 \mathrm{I} / 2$ fathoms above the level of the ground and is in two parts on two slight projections of the mountain wall, one above the other. Someone very agile might possibly reach the place without assistance, but it would require the help of others to paint some hieroglyphics there. I consider it impossible, however, that these red signs should have withstood the elements for centuries, besides which they resemble the European alphabet, Latin and Russian, too much for me to believe that they are anything but a joke perpetrated by someone not very long ago. Not far off, at the end of the gorge, we found some more similar signs at about the same height, but so worn that it was impossible to copy them.

To-day I decided to sacrifice 3 or 4 days in order to visit the stones in Chal Kode that I have already referred to. I hear from people who have seen them, that they look as though they had been carved by human hands. Horses had been obtained, fodder and meat had been bought, when late last night the guide, whom I had engaged with much difficulty, informed me that the road was in such a condition that travelling with packhorses was not to be thought of until later in the spring. The road, which leads across a high and difficult mountain, is of such a nature that the horses have to jump large bits of rock which is impossible at present in view of the ice and snow. If a horse takes a false step, it goes down a precipice. As I cannot sacrifice my own horses and the road across and from the mountain is too long to be done on foot, there was nothing for it but to abandon the idea of this expedition.

In two villages that I visited I found some dissimilarities from the places I have seen so far in Chinese Turkestan. Instead of each landowner having his farm separately, surrounded by his strips of field, several seem to be grouped together here and to build a joint farm, on which each family has its own house or its own room or rooms. They go in for joint housekeeping and all have their meals together. The tilled area per farm is larger here than in parts I have visited earlier, the water supply is sufficient, the number of cattle larger, but there seems to be insufficient manure. The crop varies from 5 and 8 fold for wheat and $25-80$ fold for maize. On third category land it is apparently even less. According to other informants i tcherak of seed yields $6-8$ tcheraks on I category land, 4 tch. on II category and 2 tch. on III category. I tcherak of maize yields 10 tch. on I, 7 tch. on II and 4 tch. on III category land. Strangely enough the land area is calculated here per hou, not per mou as in the rest of Chinese Turkestan. Even in Aqyar, which has been joined on to the Uch Turfan district for some years, the mou is considered the unit of land. I have not been able to obtain any satisfactory explanation of this difference. It is said that, when the Chinese wanted to divide the land per mou after conquering the country, the population was dissatisfied, as they got too little land. In Yaqub Beg's time the unit was a "tanap", which did not correspond either to the mou or the hou, besides which the land area does not depend on the unit.

According to information from Chinese sources, there are said to be 30,000 hou of fields (i.e. $600,000 \mathrm{mou}$ ) in the Uch Turfan district. According to the statement of the Russian aksakal, the total field area amounts to 350,000 mou plus about 5,000 mou of
land unfit for cultivation (for which taxes are, nevertheless, paid). The villages are divided as follows among the different Begs: in each Beg district there is a Mirabbeg, who controls the distribution of water and has as many Kukbashis under him as the Beg has Quzbashis or Yuzbegs, as they are called here.

The villages of Shahyar, Atbashi, Yamansu, Aqtokai, Sugetlik, Tosma and Bashaghnagatcha, with about 900 farms (about 1,200 households) altogether, form a Beg district with 9 Yuzbegs. The population is about 5,000 . In one Yuzbeg's district the land area can be estimated at about 12 hou per farm, in another's at 10 hou and in those of the 7 others at 6 . There are 150 flourmills in the district and 80 establishments for the production of linseed oil.

The villages of Larym mazar, Qara Khuja, Besh Terek and Kui Bagh fotm another Beg district with 7 Yuzbegs. The number of houses is 490 , with $\mathrm{I}, 300$ individual landowners. The population is about 5,000 . 60 flourmills, 23 grain mills and 90 oil establishments. The field area is about 6 hou per farm.

The third Beg district, also with 7 Yuzbegs, consists of the villages of Qarabagh, Djamazim, Kuche, Qara Khuja, Surgun, Yangi Hissar and Khotan. 490 farms with about r,ooo landowners and about 6 hou each and 3,500 inhabitants. 50 flourmills and 40 oil establishments.

The villages of Ach-tagh, Toqsun, Jarbeg and Qara Khuja are administered by a fourth Beg with 9 Yuzbegs, of whom 2 have roo farms, 6 have 70 and 1 has only 50 to control. 670 farms with 6 hou of field each and 18 grain mills and 80 oil establishments.

Aqyar forms 2 Beg districts with 16 Yuzbegs altogether. The villages there are Kazgan, Mazar, Kucheche, Qarabash, Olluk, Kucherma, Upkä, Tim, Tayin, Kökula, Tevangi Kucherma, Tagardji, Tumen, Aqyar, Eski and Tubangiaqyar. The number of farms is 860 with 1,400 landowners and about 4,000 inhabitants. 72 flourmills, 32 grain mills and 52 oil establishments. The town itself consists of 500 Sart, 1 ro Dungan and roo Chinese houses. In taxes in the whole of the Uch Turfan district 10,300 tan of grain are levied, for which 2 tan are paid irrespective of the kind of grain. ( 125 djin of wheat cost about I r. go c. and maize about i r. io c. in the bazaar.) In addition $1,360,000$ djin of straw are levied in money at 80 cop. per ioo djin. The difficulty of ascertaining the actual rate of taxation here is increased by the fact that the unit of land (hou) is of unknown size. Abdul Kadyr has during the last 3 years paid, according to his own statement, io, 8 and 13 lan at the discretion of the authorities. In other words, whatever is demanded, is paid. - The Kirghiz apparently pay i lan per kibitka. Formerly they had to supply 500 sacks of charcoal which the Begs divided among the taxpayers. Now this liability seems to have been abolished. Nor do they seem to do any military service. In the Bedel karaul there are two recruited Kirghiz, in the Bashaghma karaul only 3 Chinese and there seem to be no other karauls. - According to the aksakal the Kirghiz form the follwiong 4 groups:

The Kirghiz tribes Cherik, Kakshal and Si with 490 kibitkas and 1,500 people, 36,000 sheep, 5,000 horses, 2,200 cows and 900 camels inhabil Qara Bulaq, Balgundi,


The Mizar of the Seven
Sisters at Och Turfan.

Kaltabuk, Dis Bulaq, Sara Bulaq, Ufar Talkan and Ajekhte. The tilling of land is inconsiderable.

The tribes Satkul, Kuntshaj, Akhshi, Utshkär, Somtashtuimat ogly, Akhtala and Khumar with 450 kibitkas, 1,500 inhabitants, 23,000 sheep, 230 horses, 1,600 cows and 1,100 camels inhabit Aqchi, Biliauti, Akhtala, Jailau, Tegerak, Kaklik, Karaguve, Arpatchutchak and Somtash.

The Bakhte Kirghiz with 470 kibitkas and 1 ,200 inhabitants, 35,000 sheep, 2,500 horses, 1,800 cows and $\mathrm{I}, 300$ camels inhabit Kulansariq. They till the land slightly.

The Kuchi tribe with 700 farms and kibitkas and 1,700 inhabitants, 22,000 sheep, 1,100 horses, 1,200 cows and oxen and 500 camels inhabit Saferbaj, Yamansu, Kaitshe and Zindan.

About 500 farms in the district belong to the state and are leased at i lan each. If seed is advanced to the population in case of the crops failing, it is recovered with an addition of 100 to 150 per cent. Wheat and maize are grown chiefly, but barley and flax, too, in appreciable quantities and rice owing to the abundance of water. The Dungans especially, but also Chinese, Kirghiz and Sarts, have begun to grow opium successfully of late. The Chinese own very little, but good land. The population complains of the bad quality of the land, about $3 / 7$ being III category, $3 / 7$ II category and only $1 / 7$ I category land. Despite the fact that there are considerably more cattle here than in other districts in Chiness Turkestan, the appreciably larger area per farm results in there being an insufficient quantity of manure available. Nor is there any supply of manure from outside, as in the neighbourhood of the large caravan routes. Agriculture seems to have been neglected until recently and to have been replaced by cattle-breeding. It has been encouraged by settling Kashgarliks and others considered to be good tillers of the soil, in this place. Now almost

The ciladel of an old ruined
tower $W$ of Uch Turfan.

everything is tilled and the natural meadows have given way to fields of lucerne. In the fields I saw roughly made two-wheeled carts, reminiscent of our northern farm-carts, used for carting manure. The model was probably obtained from Russia.

Not only Russian money, both coin and notes, but also Chinese silver constantly enjoys a higher rate here than in Kashgar. At present the rate for the rouble is 92 in Kashgar, 97 here and in Aqsu it is said to be 99 or even its full parity. For i lan here 16 tenga and 10 tchok ( 40 cop.), are paid, in Kashgar 16 tenga. - In weights there seems also to be some difference, but I could not make out if this was due to grain being measured here by its volume and in Kashgar by weight. 8 tcheraks here are said to be equal to to tcheraks in Kashgar. If goods, such as tea etc., are bought in Kashgar, there is a difference of $5 \%$ instead of the $20 \%$ referred to. In Uch Turfan and Aqsu 26 djin are supposed to be equal to I Russian pood ( 36 lbs ); in Kashgar, Yarkand, Urumchi and Qarashahr 27 djin; in Kucha, on the other hand, 25 djin . In Yarkand and Khotan only $12 \mathrm{I} / 2 \mathrm{djin}$ go to the tcherak. I was not able to get an explanation of these differences through my interpreter.

Besides the known caravan route over Bedel there are 3 roads from here across the mountains to Semiretchie.
I. Over the Gugurtlik pass along a river bed, about il/2 fathoms wide, enclosed by mountain walls. For a distance of about 3 fathoms Yaqub Beg had it closed by tumbling trees and stones across it, though the largest are said not to be too large for a man to lift. In the course of time the water has increased the obstacle by carrying down stones, earth and clay. Smugglers, who use this road, circumvent the obstacle by using a mountain path made by sheep. This, however, is also said to be impassable at present owing to landslides in two places. - The following halts for the night are usually made on this road: - 2 Uzunsass with Kirghiz water, grass and poor fuel. - 3 Tchakart not far on the
other side of Chulak Kapchik dj. Kirghiz water, grass and fuel. -- 5 Tgertash. Kirghiz water, grass and fuel. Here the road divides. One goes in 3-4 days to Prjevalsk. Another leads over Koulu (Koily?) dawn along the mountains of the same name to Ti. - 6 Turpa, Kirghiz water, grass and fuel. From there 2 roads go to Ti. One over Sarijeza, Kukjar and Kapkak dawn, the other over Turgan aqsu dawan. The road is said to be good throughout its length, if there were no obstacle in the beginning.
II. Gugurtlik karaul - 2 Kaitche -3 Kaitche agze. Kirghiz water, grass and fuel. 4 Tchakart and so on.
III. Is said to exist from Mazar Sultan Karmysh at over the Savabtchi mountains and Qumariq darya (Aqsu darya?), Iniltchek and Sarijeze. Said to be very difficult and is only used by horse-thieves and Kirghiz.

February 2 ard.
Bashaghma karaul village.

This morning I started after spending five very pleasant days in a comfortable house surrounded by grand scenery. I presented the venerable old aksakal with a small Arabic copy of the Koran and his son-in-law Abdul Kadyr, who had taken a great deal of trouble in helping me, with a silver watch, quite pretty, but unfortunately with the slight drawback that it does not go, apparently like all the pretty, but cheap watches bought for me in Paris. To lessen his disappointment I added a silver chain. Abdul Kadyr put on my modest gift next to a beautiful gold watch that I had seen before. I was terrified lest he should try to set the treasure going in my presence, but luckily all went well, as I was in such a hurry to mount my horse. Both men seemed pleased, accompanied me for some distance, promised to mention me in their prayers etc.

I took the Kashgar road along the foot of the Qara Teke mountains in order to make a day's march up the course of the Taushqan darya and then follow its bed down to Aqsu and on to the Yarkand darya. With Dr Sven Hedin's excellent map in my pocket I scarcely needed to put any questions to my guide in order to find my way. The road goes in a WSW direction and approaches the chain of mountains already mentioned until it reaches their foot, along which it continues. In the distance to the north Taushqan is visible. The land is flat, tilled and inhabited. At first there is not an untilled spot and the houses are huddled close to each other, but gradually they stand further apart and you see untilled stretches more frequently. The soil, at first the yellow löss with its fine dust that is characteristic of the whole of Chinese Turkestan, gradually acquires an admixture of stones and here and there you ride across barren patches of gravel.

A quarter of an hour after leaving the town we entered the area of the village of Sugetlik. With its 100 farms it occupies an area that it takes 1 I $/ 4$ hours to cross. On the western boundary of Sugatlik a small barren plain Aklasaj, much mixed with gravel, begins, on the northern edge of which we caught sight of the village of Chajlang with about 50 farms. On the west the plain is bounded by the roo farms of the village of Atbashi, surrounded by tilled fields. In Rtbashi we passed a Chinese guard-house, no longer used. The fields gave way to ground, greatly mixed with gravel, that comes down from the foot of the mountains to the Taushqan darya flowing on our right. A little grass growing in tufts was the only vegetation visible. A couple of rain channels, divided by a spur of the mountain
going $\mathbf{W}$, joined the river from the $\mathbf{E}$. On either side of these dry river beds, 4-5 hours' ride from the town, lie two villages, Tosma with 15 Kirghiz and 3 Cart farms, and Tagh Tumshuk with about 60 farms inhabited by Carts. Of these you can only see a couple of houses, the others creeping up the gorge. Half-an-hour later we reached the village of the Bashaghma guard containing a garrison of Chinese, 1 Start and I Kirghiz. About 30 farms inhabited by the Kuchi Kirghiz tribe are grouped round it. The Kirghiz, who go in for agriculture, are quite like the Sarts in their manner of living. They live in similar houses and use the same agricultural implements. Still, they show a certain predilection for cattle-farming, for they always have a larger number of cattle than the Sarts. This may be due, however, to their fields usually being in remote districts, at the foot of a mountain, where there is pasture. Many of these wealthier settled Kirghiz spend the summer in their kibitkas in the mountains and only return at harvest time.

The Qara Teke mountains form a curve that encloses the little valley of the Bashaghma guard on three sides. From this place we reached the steeply sloping northern bank of the Taushqan darya in half-an-hour. The Qara Tee chain continues in a SW direction. In front of us to the N lay an enormous mountain range of the Sian Shan mountains. It seemed to extend from W to E , but was at least 7 or 8 miles distant. In this mountain range, to the W from my starting point, rises the decorative, snow-capped summit of Aqbel. The road from the Bedel pass must debouch about there. The river flows here in 3 arms, covered with ice at present, of which the middle one is the largest and measures about 6 , the southern one 4 and the northern one 3 fathoms in width. The bed of the river is stony and covered with gravel, though there are no stones of any great size. At high-water an area of barely $2 / 3$ of a mile in breadth is under water here. In the water channels the depth is then about I $\mathrm{I} / 2$ metres, at normal times the depth does not exceed I metre. The river is generally swift; during the spring floods from the middle of May to the beginning or middle of July the water brings down many stones from the mountains. It is then impossible to ford the river on horseback. The bed of the river, typical of the mountain rivers of this country, is broad and flat with almost the same ground level except for some depressions or water channels, not particularly deep. The arms of the river divide at times into numerous small channels, at others they all flow along the same channel and then again form two or three arms. The southern bank forms a long slope with an almost imperceptible drop towards the river. The northern bank, in spite of its far greater width, has a considerably more pronounced drop, especially in the part closer to the mountains. The soil on both, especially on the northern bank, contains much gravel and stones and has no vegetation or only a little grass growing in tufts. The northern bank is higher and drops vertically from a height of about 3 fathoms here to the river bed. The bank is intersected in some places by a crevice extending vertically to the course of the river. The soil is logs everywhere. No trees or houses excepting the few farms of the villagers at the foot of the Qara Peke.

Approximately opposite Ing Tumshuk and Tosma $S$ of the river a poor little village, Kök-jigda, lies on the northern bank with ${ }_{15}$ farms and an abandoned old Chinese guardhouse. To the W of this the ground forms a number of small terrace-like steps. A line
of trees that form the village boundary on the W , marks its position at a distance. It is at about this place that an arm separates from the rest of the river and takes a more easterly direction, at first pressing against the outrunner of the Qara Teke and later flowing across the plain at an appreciable distance from the other arms of the river. A white ribbon of ice, marking its course, was visible for several hours from the high northern bank. Here the river diverges more and more from the Zara Peke mountains that appear to retreat further and further. The distance to the mountains in the N seems to diminish slightly. On the height of the Yamansu bashenda Akanbez mazar the northern bank rises and drops from a height of about 6 fathoms. It keeps at this height, which makes it quite inaccessible, especially as there are no crevices, for about half-an-hour. Removed from its frame of mountains in the $S$, the river spreads out here and is about $11 / 3$ miles broad.

The large village of Yamansu with about 200 houses begins at the mazar, and is inhabited partly by Kirghiz, but mostly by Carts. The fields are poor at first and the buildings isolated, but the latter become more numerous, though they never form any large group of houses. On the southern bank you see the villages of Atbashi, Chilung and Sugaetlik, forming almost a connected mass, if viewed from the northern bank. The bed of the river that narrows to $2 / 3$ of a mile in the western part of Yamansu, grows wider again and is quite I $1 / 3$ miles wide in the eastern half of the village. The ledge of the bank which had kept at a height of about 4 fathoms, descends gradually. Only a modest arm of the river flows along it. The main mass flows in 2 or 3 arms along the flat southern bank. From the eastern part of the village of Kök-jigda the water channels have become so much shallower that the small horses of the population ford them even at high water.

February ${ }^{25}$ th. We continued our journey today further down the river in lovely spring weather. Onylik village. From the end of the village of Yamansu miserable stony ground begins, called Qara Jas across the course of innumerable large and small rainwater channels, clefts, ravines etc. As soon as you leave the road you encounter obstacles at every step. In order to reach a spot only a few fathoms off, you are often obliged to make a detour of $200-300$ fathoms. Riding up and down these clefts, all running in a direction diametrically opposed to ours, was exhausting for the animals and trying to our patience. The river flows here in 3 channell, connected here and there by small runnels. The river and the steep ledge of the bank turn almost due east here, but by degrees they return to their former direction and in about 30 minutes the bank goes once more in a definitely NNE direction. Here the river flows for about $2 / 3$ of a mile in a single arm, but then again divides into two main and subsidiary arms. At a distance of 2 or 3 miles a band of ice was again visible parallel to our road, probably indicating the arm of the river that took such a pronounced E direction yesterday from the village of Kök-jigda. We were now approximately on a level with Uch Turfan, easily recognisable by the small mountain next to the town. The chains of mountains in the N and S , especially the latter, seemed to diverge very much from the course of the river, and the valley or plain on either side of it grew broader and broader. In the S its breadth must be about 5 miles and in the N it is at least as far to the mountains. The bed of the river had grown narrower and was not much more than $1 / 2$ mile wide,
where the river flowed in one arm, but it grew wider again and very soon it attained a width of about a mile and later even more. The stony plain gave way to another with a layer of löss at any rate next to the surface. In sections of earth in clefts and along the N bank of the river I noticed various layers of earth. The lowest, at the surface of the ground, contained less stones and gravel. Above it a layer of löss of $3-4$ feet and again a layer of the same conglomerate, this time not more than $\mathrm{I}-2$ feet, and crowning it all a layer of löss occasionally going in mounds or hillocks.

The arms of the river leave the ledge of the northern bank and press against the southern bank. On the space, at first very narrow, between the ledge of the land and the river we found the first houses of the village of Qarabagh partly on the eminence and partly in the bed of the river itself. The arms of the river withdraw as far as a mile and a third. In riding across the fields here, intersected by ariqs, you forget entirely that you are in the bottom of a river bed. Without any perceptible boundary Qarabagh is succeeded by the village of Säkisylik which in turn gives way to Hungrat. The river again crosses to the northern bank, where it flows in a main arm close to the ledge of the bank and in a couple of smaller runnels further off. During the whole of the day's journey the river does not present any serious obstacle. Even in those places, where it flows in a single arm, it can be forded at high-water. As a rule several horsemen combine for this purpose, so that in case of need they can help each other, but a horseman who knows the river can cross by himself. The steep ledge of the northern bank follows the river closely throughout the day. At times it has a drop of 3 or 4 fathoms, but at others it is as much as 7 fathoms above the river. There are many rainwater channels and small arms of the river at short intervals which cut deep clefts in the löss and form a row of paths to the higher ground. Owing to this circumstance and the comparative shallowness of the river, the latter does not form a serious obstacle along the route we have travelled to-day. At the NE end of the village of Qarabagh the river flows in 2 main arms, each $6-8$ fathoms wide. Its current is swift. The water comes up to the belly of a local horse. The bed is hard and the banks are accessible.

On the southern bank of the river farms with trees and fields seem to succeed each other without interruption. Chailang and Sugetlik, approximately opposite the northern end of Yamansu, are followed by Dongchik with about 50 houses and Merket with about as many on the level of Qarabagh and finally by Khokholak with 8 houses opposite Säkisylik.

The mountains on our left had gradually withdrawn more and more. They seemed to form a curve far in front of $u s$ in the north and continued on a larger scale with snowcapped summits to the E or NE. The guide called the chain of mountains Muzart tagh. The villages and houses in the river bed looked poor, the fields were poor and in some places there were deposits of salt on the surface. Some of the dwellings were simply dug into the vertical ledge of the bank. Such a grotto-like dwelling looks anything but inviting with an opening serving as a door, over which the smoke from within has formed a broad black streak. The women wear a cloth as headgear instead of the leather cap that is usual everywhere else. The cloth is mostly red and tied by two ends at the back of the neck, the two other ends hanging loose.

February ${ }^{26 t h}$. During to-day's journey the river took a more and nore E, at times a SE course. At Sughun village. first it flows in 4 arms and forms a curve of about 8 miles, open to the $S$. In this reach it approaches closer and closer to the northern bank and the river bed narrows gradually to a width of $2-21 / 2$ miles. The little village of Gungrat lies on the northern bank. With a couple of farms it extends below the ledge of the bank which is fully 7 fathoms in height for about $5 \mathrm{I} / 2$ miles and is only accessible in 4 places, where steep bridges lead to the top. The following villages succeed each other on the southern bank: Kandak with roo houses, Djiran with as many, Kagotra with 350 rather further off and Djoubezem again closer to the river. With the exception of the village of Kuche with about 200 houses, $4-51 / 2$ miles distant from the river, there are no dwellings on the northern bank of the river for a distance of $8-9$ miles after leaving Gungrat. A grey, desolate plain with practically no vegetation extends between the mountains and the river that flows further and further from them. The four arms of the river unite about the middle of the curve already mentioned and flow in a single channel for barely $2 / 3$ of a mile. This is crossed by a shaky bridge. The width is 25 fathoms, depth 1 m .73 cm . at the deepest place, 1 m .60 cm . at a distance of 2 m from the southern bank. In hot weather the population fords the river here, too, though the depth exceeds the height of a horse. During the winter this place is avoided for fear of catching cold. Excepting at this place the depth of the river does not exceed I m and presents no obstacle to a horseman even in the spring and summer. The water presses hard on the vertical northern bank here. Soon it divides into two main arms with subsidiary arms going from them in places. For about 4 miles these arms flow close to the northern bank. The ledge becomes lower during this stretch and finally disappears altogether, but is replaced a few minutes later by a mountain, apparently solitary, in a S (?) direction, of about the same height as the mountain at Uch Turfan. One of the arms enfolds the steep $W$ and $S$ sides of the mountain. Here, too, it is joined by the arm that had taken such an E direction from the village of Kök-jigda and had only rarely appeared in the distance as a silver ribbon of ice during the last three days. The bed of the river is not more than $1 / 3$ of a mile wide here, while the water channel had widened considerably. To the south of the mountain, which the local people call Sughun or Djonbezem tagh after two villages situated east and south of it, the river again divides into two main arms which, combining into one in some places, continue in an E direction. The mountain is in the NE and is continued by a chain of less important heights. The enormous mountain range that was visible before in the N and NW had disappeared entirely, possibly because the air was filled with dust and therefore not transparent.

The wonderful sunshine of this morning had changed to a biting NE wind with pillars of sand and dust showing here and there. In the $S$ the northern extremity of the Qara Teke mountains was visible at a great distance beyond a line of houses surrounded by sparse trees and fields. It looked as though the river drew near to them by degrees. On the bank opposite the mountain lies the village of Djonbezem that seems to be connected with it and with Khotan which surrounds it. This village is inhabited by Khotanliks, who have immigrated, and takes its name, like another village, Yangi Hissar, from the native town of the population. To the east of it lies Bugan. On the northern bank tilled land

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appears again at the village of Sughun at the eastern foot of the mountain. The river valley now has a different character. Both banks are flat with houses and trees extending to the river bed, which is about $2 / 3$ of a mile wide. In the middle of it the river winds, sometimes in 2, sometimes in I broad arm, from one bank to the other. The depth is not more than I m and the river can be forded even at high-water.

The day was cloudy and a cold east wind, blowing in our faces, made our work hard to-day. At first the river and its bed bear the same character during its further course eastward as during yesterday from the Sughun mountain. The river flows, separating into several arms, of which 1 or 2 are always larger than the others, in a bed of I to $11 / 3$ miles in breadth. Both banks are flat, tilled and inhabited. The fields extend at times between the arms of the river. The southern bank, however, is decidedly more densely populated and has more villages than the northern one. No mountains in the north; in the south the chain of mountains of the previous day seems almost to reach the river with its northern point. Between it and the river a small isolated mountain rises in the direction NW-SE. Approximately on a level with these mountains there is a ledge on the northern bank at some distance from the actual line of the bank, at first low, but subsequently about 3 fathoms high and in terraces, from which you get an excellent view of the flat southern bank. Above it there is a desolate plain, intersected by numerous water channels, with hard ground of fine gravel. All the tilled land lies between this ledge and the river. This height extends for about 7 miles parallel to the river at a distance of 150 250 fathoms from it, whereupon it disappears gradually, when the river adopts a more SE direction, and gives way to larger fields.

The villages of Gumbez Aldy with about 60 houses and later Djadjigda with about 50 have taken the place of Sughun with its 70 houses. On the southern bank lie Bugan, west of the mountain, and Tokmak with 30 houses, Sumaptche with about 40 and Jailaktyr with 60 , east of it. At the place, where the fields become larger on the northern bank, the village of Yangelmelesse begins, Jailaktyr still extending opposite it. The ruins of a small „Kalmuk» guard-house of unbaked bricks stands on the ledge referred to at the end of the village of Gumbez Aldy. From here up to Yangelmelesse the river flows in a single main arm with insignificant subsidiary arms. At the latter village the river crosses the road from Uch Turfan to Aqsu. In the winter a small bridge is thrown over the river here. During high-water 3 barges, with 15 horses each, carry the traffic. Contrary to my information of yesterday, I was told that for all this distance it is impossible to ford the river at high-water, i.e., for 2 or 3 months, except at Sughun and slightly above the bridge mentioned above. At these two places the depth is about 1 m .30 cm . at that time. During the winter months the ice is said to give trouble in crossing the river and it is only for 6 months out of the 12 that the river presents no obstacle to traffic. Further east Aqyar begins on the southern bank and Qara Döbe with about 50 houses on the northern one and later Kichik Aral with about 500. The southern bank ascends perceptibly from the beginning of Aqyar and forms a vertically falling ledge, about 5 fathoms in height, along which there is a row of houses and trees. The northern bank continues flat. The river
flows in 1 or 2 main arms with a pronounced predilection for the southern bank. Everywhere the river is said to be unfordable at high-water.

At Aral I saw a peculiar farm-waggon or rather cart on low, solid wheels without spokes, made of rough logs of wood or boards. The body of the waggon was a box made of rough boards. The whole thing was clumsy, heavy and did not hold much. - In many places considerable deposits of salt were visible on the surface of the ground.

February ${ }^{28 t h}$. From Kichik Aral we rode across to the high southern bank in order to observe Qara Döbe and the course of the river more easily. We forded the river at a place, where it is divided Yangelmelesse. into two main arms flowing next to each other, one about 20 , the other about 17 fathoms wide. Greatest depth 85 cm . Just beyond the river turns sharply to the south, one arm touching the steep southern bank and flowing along its foot for about i $3 / 4$ miles, while the other remains $1 / 3$ to $2 / 3$ of a mile distant. At the end of the village of Aqyar these two arms run into each other and continue for $3 \mathrm{I} / 2-4$ miles, as far as can be seen from the southern bank, in a channel in an $E$ direction at a distance of $2 / 3-1 \mathrm{I} / 3$ miles from it. Here you obtain a splendid view of the valley and the flat northern bank. Viewed from a distance the latter now has the same character as the southern bank during the first three days: a flat plain with an uninterrupted row of houses, trees and tilled fields. On the southern side a desolate plain of logs begins at the eastern boundary of Aqyar. Traces of abandoned strips of field with low walls of earth are seen close to the village, but no vegetation. Here and there you see a ravine-like, though not deep, rainwater channel or crack in the ground. A mile or two east of the village and about as far north from the ledge of the bank there are obvious remains of walls in 4 places. One of these ruins measures $30 \times 24$ feet and still has fairly high (about 1 i/2 to 2 fathoms) remains of a wall; there is little left of the other 3 walls. The building faces $N$ and $S$ and seems to have stood on a slight artificial eminence. Another ruin looks as if it had been a small octagonal tower of unbaked bricks. The four sides of the ruin facing $W$ are in parts quite well preserved, the others have been destroyed by falling bricks that have formed a heap at the foot of the tower. The other two ruins are remains of small houses. In many places there are remains of old clay vessels on the surface of the ground, in a couple of places slag. Everything points to a village, at any rate, having stood here. Unfortunately, my guide, a Yuzbashi from Aqyar, could tell me nothing; from other natives, however, I heard that these ruins are ascribed to the Kalmuks. The plain, on which they stand, is called "saj" like so many similar plains. The ground between the ledge of the bank and the river is white with deposits of sand, and the ground is so porous that the horses break through it almost all the time. A bushy, low plant grows here which the population collects for fuel. The "saj" plain extends eastward for 7 or 8 miles to the foot of a small chain of monthins, Patlama tagh, that takes a SSW -NNE course and the northern point of which reaches the bed of the river. About $2 / 3$ of a mile before the mountains the ledge of the bank disappears. Before this its height of about 8 fathoms in the village had been reduced to 4. The river flows in two arms in an easterly direction to the foot of the mountains, where they combine into one arm, over 20 fathoms broad, which goes on to the NE. For the
whole of its length the ledge of the southern bank is cut up by dry river beds, crevices and water channels, which greatly impedes traffic along the bank. The mountain is also cut by a couple of dry water channels. There seemed to be no roads leading up to it and our guide assured me that there were none. Nevertheless, the mountain did not look inaccessible and it is by no means impossible that there may be some mountain paths. In its course to the NE the river again departs more and more from the mountain, forming a plain with a lot of salt deposits on the surface between itself and the mountain. The following villages lie on the northern bank: Kichik and Chung Aral with about 500 houses together, Shaktura with 60, Merket with 30, Chugulun with ${ }_{1} 5$ and Qara Döbe djeneal melessi with about soo houses. The tilled land on both banks displays the same character - a narrow band of houses and fields bounded by a barren plain of gravel and stones, running parallel to the river bed beyond the strip of tilled land. There are no roads generally used for traffic here, though the country is passable for anyone not afraid of a shortage of water and fodder. We saw large flocks of geese going north.

A wonderfully hospitable country! You come and instal yourself in almost any house you choose, and the owners put the best face on it they can. To-day Ismail chose a wealthy, commodious house, the owner of which, the widow of a Beg, had gone with her daughter and son-in-law to a mtomashay feast. Without further ado we established ourselves in the two best rooms, and when the old woman, a typical mother-in-law, came home late at night riding an ox, followed by her daughter on horseback and her, to say the least of it, unassuming son-in-law on an ass, she seemed to think it quite natural that the family should be relegated to the worst corners of the house. It was only on their return that I discovered that the house had been occupied in the absence of the owner and I was aghast when I saw them come in.

After taking touching leave of mmother-in-lawn, who proudly refused the money I offered for our lodging with one hand, but not only accepted it with the other, but turned away and checked it, we started in an E direction. We made an attempt to cross two arms of the river close to the village, but had to give it up, as the water came up to our saddles before we were halfway across. Half-an-hour further east near a mazar-like memorial at the northern extremity of the Patlama tagh, called Kiyik tagh here, erected in memory of the Mohammedans who had fallen in the battles with the Kalmuks, we forded the river that flows here in an arm about $20-22$ fathoms broad. The greatest depth was 1 m 10 cm ., the bottom was firm and the current swift. In contrast to the previous days, when marshy places only occurred exceptionally in some slight depressions on the bank, the northern bank showed obvious signs of marshiness to-day, and judging by the care with which our guide negotiated such doubtful places, we could conclude that in places morasses prevent traffic between the two banks of the river. The Patlama tagh forms slightly hilly ground close to the bank with hillocks of gravel and sand that succeed each other with no regular sequence. The river follows this eminence for 1 or 2 miles on its course and then, describing a large curve, it withdraws from it to a distance of $2 / 3-1$ mile, almost touches the ledge of the bank again after about 2 miles and once more moves away for about 2 miles. When


Ruins of an octagonal tower built of unbaked bricks, E of Aqyar.
it returns to the ledge for the third time, it flows along it and then continues in a NE direction, separating finally from the eminence that is followed by an arm called Kuna darya that is said to flow to Avar. The Patlama tagh mountains had retired in a southern direcion from the bank on the level of the Lalasja Buzurba mazar. The ground above the ledge is a plain, covered with gravel, with a curious, porous soil which the horse's whole hoof breaks through. Between the river and the eminence there is a small, marshy piece of ground, covered with grass and poor bushes, on the surface of which considerable deposits of salt can be seen.

At the place where the river withdraws for the first time from the ledge of the bank, there is a hamlet called Toshkalik, consisting of two farms and a few small fields. At about its level the Aqsu darya or Qum ariq probably combines with the Taushqan darya. An hour further east the remains of a tower built of clay and rushes, like a Chinese paotai tower in shape, rise on the eminence slightly to the south of the river. My guide, an old man of 80 , ascribed it to the Kalmuks. One side of the tower is about $4 \mathrm{I} / 2$ fathoms high. The rushes are placed in coils at intervals of about I m with clay between. The foot of the tower was probably about 6 paces square. From Toshkalik there is no cultivated soil on the southern bank up to the village of Saksak which is not actually on the Taushqan darya, but on the southern bank of the Kuna darya. Here, too, it is marshy near the banks. We crossed the latter river and continued in an E direction until we came to the bridge over the Taushqan darya at the spot, where it crosses the highway Kashgar-Maral BashoAqsu.

During the whole journey today the northern bank, seen from a distance, had the same character as yesterday - flat ground with houses and trees proceeding in a broad band along the river at a greater or smaller distance from it. East of Zara Döbe lie the villages

> Ruins of a tower on the northern spur of Patlama tagh, near the bank of the Taushgan darya.

of Kosagaz, Ajaktche Tumshuk, Igerchi with 20 houses, Gulbash with 20 and Darya Buia with 140 . The width of the Taushqan darya is 24 fathoms at the bridge and its speed $10 / 6 \mathrm{~m}$ per second. From here the road goes north over low-lying ground, marshy in places and covered at first by bushes that give way to flelds later on.

In a little over an hour we reached the walls of Yangi-Shahr, the Chinese town, and after riding for quite two hours more over a ridge of light soil that wedges itself between the Chinese and Sart towns, we came to the latter. The men and baggage were installed in the large sarai of the Russian aksakal, who gave up his private quarters to me - a splendid, comfortable room with a sheet-iron stove and two windows with glass panes. After if $1 / 2$ hours on horseback it was an indescribable pleasure to sit down to a couple of platefuls of hot soup in a warm room on a decent chair at a steady table. The aksakal, a venerable, handsome old man with a long white beard, had specially ordered for me an excellent loaf of wheaten flour and sheep's fat, also a sheep's stomach filled with much less appetising rancid butter. I have seldom crept into my blankets with greater satisfaction than last night after a thorough wash. This was not the end of my delights, for one wonderful dream succeeded another, either taking me back to bygone days and opening up a vista of fond recollections, or enchanting me with sights of unimagined beauty. All this was accompanied by subdued, voluptuous music of the kind one would imagine might be heard in some oriental fairyland. To my great chagrin I awoke from this rapture and, while only half-awake, I still heard the rhythm of the wonderful music. Instead of dying away, it became clearer; I sat up in the hope of seeing the form of some sprite or fairy princess by the side of my camp bed, but the room was pitch-dark. I realised, however, that a musical box must be playing in some niche in the wall. A match helped me to solve the problem. The old man had a little clock that played a tune for a few minutes at a given time, and purposely or by chance it had been set

for an hour in the night and this was sufficient to carry me off into the fairyland my impgination had painted.

I spent the day in doing various work, getting some order into the materials I had collected on the journey, collecting information about crossing the Muzart, developing a couple of dozen films and so on.

March 4 th. Yesterday was taken up by a call on the Taotai and the district mandarin in the Aqsu. Chinese town. The former is a very amiable old man, who has evidently found it easier to restore his beard to its former colour than to replace some of his missing teeth. From Macartney and from Stein's book I had learnt a good deal about him and would have recognised him by an illustration in the book. He invited me to stay to dinner which was served soon after my arrival and fortunately did not last long. We drank very good Engfish port and the old man went so far in his politeness as to eat with a knife and fork in order to make me desist from my probably none too successful manoeuvres with the Chinese chopsticks. After an appetising dinner, tea was served, a thing I had missed at previous Chinese dinners. Ljo had been replaced by a Chinese telegraph official Ma, who spoke a little English and whom I had heard of from the English missionary Hunter. The conversation, however, was more difficult than usual, for my interpreter's English was, if possible, worse than mine and it was impossible to make him understand even half of what I wanted to say. The Taotai spoke of extensive Chinese railway schemes, by means of which Lanchow, for instance, and subsequently Urunchi and Hame would be connected with Peiping and Shanghai by two lines. It was impossible to get any details through my incapable interpreter.

The entrance to the Sart tou'n of Aquu.


In the large courtyard of the Taotai's yamen a motley crowd of people arrayed in carnival dress had collected, when I left the kind old mandarin. A fair Sart woman was seated at a stand made of paper and light rods and fixed on whecls, and was selling all kinds of trifles. I turned my steps in her direction in order to photograph this exquisite specimen of "the sexn, but the fellow - for it was a Sart disguised as a woman -- was so impressed by the seriousness of his rôle that he dropped a veil over his beautiful features and in reply to my entreaties only pressed a fan against them in an access of maidenly modesty. At a signal given by the beating of a drum the crowd formed into a procession which moved solemnly through the streets in honour of the Chinese New Year, to the great delight of the population. A group of Sarts of all ages, not much less gaily clad, remained in the courtyard; they were to have the honour of carrying the insignia of the Taotai's rank and preceding his elegant little Chinese carriage, drawn by a mule, when he paid a round of calls a little later. I met him in one of the streets and could really not say which of the processions looked more like a carnival.

The district mandarin, an elderly man of charming and not at all Chinese appearance, made a very pleasant impression on me. He was formerly stationed at Ili and came into contact with many Europeans there, especially Russians.

I was disappointed not to find the military mandarin, Tchentoj Tan, in, when I called. It would have been interesting to make the acquaintance of the man who commanded the troops in the Aqsu district, the most important district in Chinese Turkestan from a military point of view.

My temporary Chinese interpreter placed me in an awkward position by failing to turn up on the day on which I had informed the mandarin of the Sart town that I would call on him. This call was all the more imperative, as on the day of my arrival he had sent me the traditional mandarin's presents, a sheep, some maize, hay and wood,
and I had already called on all the officials in the Chinese town. At the appointed time I sent the man a horse, but after waiting for six hours it brought me instead of Mr Ma a note written in English, informing me that he could not possibly come, because he had remembered that it was his father's birthday (his father having long ago departed to a better world). Instead he would come nthe day after after to-morrown. I was not going to wait so long, so I decided to start for the Yarkand darya nthe day before the day after after to-morrow" in order to make a map from there along the river to the bridges over the Taushqan darya or Aqsu darya as it is called after combining with the latter river. To reach the spot, where the Aqsu darya joins the river Yarkand, I chose the more northerly of the two roads that lead southward along both banks of the former river. I proposed to return along the southern bank.

From the Sart town of Aqsu the road took us over the ridge or plateau of löss that I have mentioned already, in which it has cut a track as much as 5 m in depth. For about $3 \mathrm{I} / 2-4$ miles before reaching the plateau the road runs along the foot of a ledge cut vertically in it, about 5 fathoms high. Here the bed of the river Aqsu lay once upon a time, but it has since moved westward. For fear of its again returning to its old easterly course, destroying everything in its path, the inhabitants have built an embankment close to the bed of the river, and this is strengthened every year at the season of high-water by $1,000-1,200$ labourers sent there by the authorities. The road runs along the eastern wall of the Chinese town, on the outside. We rode along a Sart bazaar street of a respectable length. The Sart bazaar that has grown up to the north and east of the Chinese town does not seem to be much smaller than the whole of the old Sart town. From this place the road takes a SSE direction and leads through tilled and well cared-for fields. On the right we passed a charming little Chinese theatre, surrounded by a wall. Its straw awnings gave it something of a Japanese touch. On the left we saw the crenellated wall of the barracks of a cavalry detachment. Half-an-hour from Yangi-Shahr we passed the Qarasak mazar. Just beyond the Dolan üstang, flowing from the Aqsu darya, about 5 fathoms wide and with a swift current, crosses the road. Some fields and the road itself in places show signs of moisture. The farms look better cared for and are less numerous than in the southern part of the country. Immediately beyond the precincts of the town the village of Igerchi begins with its 50 houses, succeeded by the village of Langarchi also with about 50 houses. An hour from the town we reached the much larger village of Choktal and took some time in crossing the area occupied by its 200 houses. At the end of it the road reaches the bed of the Aqsu darya, i $1 / 3-12 / 3$ of a mile wide, flat and with grass growing in some places. It flows in 9 arms here, the main arm, on the south, being so full of water for a month to six weeks that no crossing can be effected except by means of the barges that carry the traffic on the Kashgar-Aqsu road. For the rest of the year the depth probably does not exceed I m rocm and there is no difficulty in fording the river. The banks are marshy in places, however, but according to the local population even these places are passable. The river has cut a bed here a couple of fathoms in depth. Soon after the road has debouched into the river bed, or approximately $21 / 4$ hours from the town, the village of Kumbash with about 350 houses begins. Three-quarters of an hour later we reached
the Kumbash mazar on the right. The road runs along the edge of the ledge of the bank. The belt of tilled land, about 2 miles in width at first, grows narrower and between the villages of Kumbash and Beshtugemen there is a wedge, formed of grass-covered mounds, of the desert-like area that limits the tilled fields along the river. The soil is so saliferous here that you imagine that you see a covering of snow between the thin blades of grass. The river and the road have in the meantime described a wide curve and instead of SE they now run SSW.

The Beg met me at the beginning of the village of Beshtugemen and offered me the hospitality of his house. He lived in a large house not far from the bank of the river and it was very comfortable there after riding for $71 / 2$ hours on a cold and dull day.

Field work was in full swing. Everywhere I saw people ploughing, or rather scraping the surface of the ground with a very primitive wooden plough drawn by a couple of oxen. Wheat, millet and rice were being sown now, maize $30-40$ days later. The fields are ploughed here once in the autumn and again once or twice in the spring according to whether the field was sown last summer or not. Manure is necessary. If there is not sufficient available, dry walls, dust from the road, the top layer of spurs of rock etc. are used. The seed ripens so slowly that there is no question of two crops during the same year as in some of the southern districts. Winter wheat occurs, though in small quantities. Fertilised land yields a $5-6$ fold crop of wheat, 48 fold of maize and $20-45$ fold of rice. There seem to be more cattle than in the southern districts and they look better kept, as do the horses; Maral Bashi is an exception as regards horned cattle.

Beshtugemen is a large village of about 250 houses, or rather five separate villages administered under this common name by 1 Beg and 5 Yuzbashis. Wheat yields a io fold, 5 fold and 3 fold crop here in the different categories; maize 30,20 and 15 fold, rice 15 and flax i6 fold. About $4-5$ persons can be reckoned per household, i horse, 4 heads of cattle, 2 asses, 12 sheep and 20 mou of land. The calculation is, of course, very approximate.

Early this morning there was a slight buran-like wind which was soon succeeded by some drops of rain. The sky cleared for a time, however, during which we enjoyed wonderful sunshine, but then the clouds closed again and covered the sky for the rest of the day.

At Beshtugemen the Aqsu darya flows in 3 arms, the one on the south being the largest. During the season of high-water, i.e. for $30-40$ days, all connection between the two banks is cut off at this point and is only possible by means of the ferries higher up or lower down. During the rest of the year the river can be forded; even the marshy places visible from the bank present no insuperable obstacle. The depth is said to be no greater than to cover half the saddle of an average horse. There do not seem to be any fixed fords that are generally used. You select as broad a place in the arm of the river as possible and ride across.

After we had ridden for an hour and a quarter through tilled fields the road debouched at Beshtugemen mazar into the river bank which is about $11 / 2$ fathoms high here. The river here flows in one great arm. The bed of the river is $I-11 / 3$ miles broad between the


A plough ready for remoial after the day's urork.
ledges of the banks. Direction SSE. Here, too, it can be forded and the conditions are the same as just described. The road took us along the bank for about half-an-hour. The band of tilled land and inhabited section had again grown wider and was probably $2-21 / 2$ miles wide in parts.

The road goes E and SE , while the river makes a bend almost due S . Three-quarters of an hour later we entered the extensive area of Qaratal. Qaratal consists of no less than 18 villages covering an area that bears this common name. The houses are more scattered here and the fields larger. Here and there we passed a sandy hillock and in some places the sand seemed to make inroads into the tilled fields. The cultivated area is at times narrower and sand-hills appear behind the trees to the north, then again it widens. In four hours we came to a small uncultivated plain with large salt deposits. I $3 / 4$ hours later we rode through Musmen mazar on both sides of the road. After riding for 7 hours we again reached the river that comes from the west and bends sharply to the south here. It flows in an arm about 150 fathoms wide. Here it is considered impossible to ford it at any lime of year. About an hour later Qaratal came to an end and we entered the region of the village of Matan. A small ferry keeps up the connection between the two banks. Our road ran along a large canal dug three years ago by order of the Chinese authorities. Many Sarts were made to sacrifice their time here without payment and without any result, for the canal has disappointed all hopes and remained dry, proof that this irrigation work is not so simple as many people are inclined to think. After covering $30-31$ miles we halted before the rather dirty, though comparatively large house of the Yuzbashi in Matan, where we were to spend the night.

It was $8.30 \mathrm{p} . \mathrm{m}$. The soup was ready, but everyone had fallen asleep, worn out by the day's work. Even the cook nodded by the side of the kettle and the fire seemed to be going out.


Matan is among the villages that bear the common name of Qaratal. They are as follows from W to E: Kuna üstang with 20 houses, Wakhpe with 55, Sarkar arghe with 30, Kokul with 50, Tugemen bashi with 4, Doskul with 20, Kazak with 20, Tobruche with 18, Ganreg with 16, Böchche with 60, Konak with 25, Sart with 17 , Galdur with 50 , Matan with 55, Zagar with 3, Taz with 60, Kadam Aimak with 15 and Sorqum with 20. -- Wheat yields up to 8 fold, maize 3 , flax 4 and cotton 3.7 burans in the spring, 3 in the autumn.

There is not much to be said about this day's journey. A strong north wind that had been blowing since yesterday had raised so much dust that the view was extremely Khotan restricted. As soon as the village is left behind, you enter ground covered with thorny mähäll bushes, thickets and grass which continues uninterruptedly to the Yarkand darya. In some places the bushes change to thin trees. The soil is very saliferous the whole way. Nothing relieves the monotony of this melancholy landscape. The wind howls and constantly carries fresh clouds of dust from the north and north-east.

In about five hours we reached the remains of 3-4 Sart houses, abandoned when the river that once flowed here made a new bed 2 or 3 miles further south. A little later some grazing horses and sheep indicated the proximity of human dwellings. In $5 \mathrm{I} / 2$ hours from Matan our road came out on the Yarkand darya which rolls its mass of water in an arm about 100 fathoms broad in a direction $92^{\circ}->260^{\circ}$. A rickety ferry maintains the connection between the two banks at a price of 5 cop. per camel or horse. The oars are merely a couple of spars and everything is extremely primitive. I crossed over to the other bank from which six horses from Khotan were to be brought across. Three ferrymen laboured in the sweat of their brow and it was with great difficulty that we got across after sailing for half-an-hour and running aground once or twice. The charming company of Khotanliks

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got ashore and rode off pursued by the curses of the ferrymen, for they had not paid a farthing. It is not surprising that under such circumstances the ferrymen have to content themselves with a modest profit of 50 cop. a month.

We spent the night in a more than usually miserable hut. The village consists of five houses built partly of lumps of clay, but otherwise only of sticks and branches with no clay at all or very little. They are only inhabited in the winter by some Qaratalliks, who bring their cattle here and return in the summer to till their plots of field. From the style of building, however, you would sooner take the houses for summer than winter quarters. Some fishing is done here; in two of the huts there were nets reminiscent of our warpingnets. An eagle was chained to a perch in front of one of the huts. A leather cap drawn over both his eyes quells any desire to hunt at an unsuitable time.

March ioth. After a tiring day we were here again for the night. I could not carry out my Matan village. intention of returning along the southern bank of the Aqsu darya, because I was told that at present there was no possibility of crossing the Yarkand darya except by the ferry that I described yesterday. I could therefore cross to the other side, but could not get back again further south. Besides, I was told that at the place where the Kuna darya again joins the Aqsu darya (slightly $E$ of Matan), it would be impossible to ford cither of the rivers, so that I should be forced to stick to the southern bank, not of the Aqsu, but of the Kuna darya. On reflection I decided to keep to the northern bank of the river.

The strong north wind yesterday and the day before had lowered the temperature very considerably, but at daybreak it was almost calm and the sky was clear. In the afternoon it got so warm that I was inclined to throw off my short fur coat.

From our quarters we rode south for about $3 / 4$ of an hour until we reached the northern bank of the Aqsu darya about $2 / 3$ of a mile east of its junction with the Yarkand darya. At a distance the Yarkand darya seems to come from the SE, make a sharp bend after being joined by the Aqsu darya and take the easterly direction of the latter. The northern bank of the Aqsu darya consists of rugged and very saliferous ground covered with thorny bushes and a few scattered trees. It was difficult and painful for the horses to move in this »djengal» owing to the thorns on the bushes, which were as long as a finger. They wormed their way among the bushes and thickets in order to avoid the constant stings as much as possible. However careful you may be, your gloves, felt boots and clothes are in a sorry state after a day's ride over this wild ground. In some places the ground is very porous, in others it looks as though the surface had been boiling and had suddenly stiffened into a crust. The horses moved with difficulty on this uneven, hard surface. At a distance the southern bank seems to be of the same character as the northern one, though the edge of the wood seems to be slightly higher than on our side. The bed of the river is quite $11 / 3$ miles wide here. The river flows in two arms, the southern one being the larger. The northern arm is about 20 fathoms broad. Speed $10 / 9 \mathrm{~m}$ per second. According to the statements of the population it can only be forded during two months in the autumn or late summer. During the rest of the year traffic is impossible. About in $1 / 3$ miles further west the two arms join and cover an area of about a mile and a half in width. We followed

the northern arm westward, it being the larger for a couple of hours. It is doubtful, if there is any other arm in this part. If so, it is very insignificant. The main arm spreads out in places over an area of a mile and a half, in others it is not more than 200 fathoms wide. At either bank the river seems to have cut a channel with a ledge of 3 or 4 feet. Where the river moves away from this ledge, a low-lying area is formed, apparently marshy, though at present you could ride across these places. The local people, however, are very careful in crossing them. The river withdraws a couple of times from the northern bank and describes big curves. In one of these we lost sight of it and only found it again after a laborious ride of over an hour in the djengal. We found it at the spot, where the Kuna darya joins it from the east. Before this junction the Aqsu darya is strikingly insignificant. Until it meets the Kuna darya and absorbs its water, it flows in a direction almost from N to S for a considerable distance.

After $10 \mathrm{I} / 2$ hours' laborious riding in the djengal we were very glad when, in the distance, we sighted Matan, where the pack-horses had been sent in advance. During the day we saw a fine eagle, some ducks and many pheasants. Unfortunately my mapping prevented my paying any attention to game.

We reached the river a little above the spot, where we left it yesterday. Here it is $40-50$ fathoms wide, has a speed of 9 m a second and flows in a bed about $1 / 2$ to $1 / 3$ fathom below the level of the banks. It describes a curve here open to the SW and withdraws in a direction of $28^{\circ}$. The northern bank is tilled and inhabited, although the fields do not come down to the river. The southern bank, on the contrary, still forms a djengal that only seems to make way for cultivated ground after a ride of about 50 minutes. We passed three enormous ariqs, by means of which the population tries to secure some of the river water. Six huge parallel walls indicate their direction in the distance. One of the two already completed has proved a failure owing to mistakes in the levelling calculations. The third is under construction. When you see these enormous canals extending for miles, you realise the amount of work expended to induce the land to yield.

From Matan we entered the area of the village of Galdur. For about $2 / 3$ of a mile we moved away from the river which makes a bend southward. We rejoined it in the area of the village of Sart On the right we passed three mazars in rapid succession. The first, Zamarja Khodjam mazar, is richly decorated with poles and trophies. Here the river bed that had hitherto not been more than about 200 fathoms wide broadens out considerably. For some time it is about 400 fathoms in width, but narrows down again to its former size. Approximately close to the most easterly of the three mazars there is a ferry. From the southward bend of the river dwellings are visible on the southern bank. They belong to the village of Tukuche which is succeeded by the village of Imam Bettagle Ghaze with about 50 houses, about on the same level at which Böchche begins on the northern bank. The river bed begins to widen again. Here a ferry maintains the connection between the villages of Jamauon on the southern and Tobruche on the northern bank. The river which had hitherto, i.c., for several hours, kept to the northern bank, withdraws at a sharp angle and the river bed grows wider and wider, while the ledge of the northern bank retains its former direction for some time. A large waterless bay with marshy ground is formed between it and the river. On the southern bank the village of Besh ariq starts here, on the northern one Särkär Arghy, soon to be replaced by Kokul. When we approached the river once more in about an hour, it flowed for a couple of miles near the northern bank. Here the river is $60-70$ fathoms wide and its bed has narrowed down to a breadth of $1 / 2-2 / 3$ of a mile. It lies rather deeper here in comparison to the level of the bank, and the ledge of the northern bank is $2-3$ fathoms high. The southern one does not seem to be lower Here the village of Wakhpe begins on the right. Between it and the southern bank there are two ferries at an interval of $2 \mathrm{I} / 2-3$ miles.

March 13th. We reached the bank after a ride of half-an-hour in a NW direction. YesterAqsu. day's ledge of the bank is in the nature of accessible sand-dunes here, alternating with a vertical ledge like yesterday's, though slightly higher. In some places they attain very appreciable heights. There are no considerable crevices visible. The bed of the river is about I I/3 miles broad. The river flows in an arm of $40-50$ fathoms in width, no important subsidiary arms being noticeable. On the southern bank a ledge like yesterday's seems to run parallel to the river that has a preference for the S or rather W bank during the whole of this day's journey. Between the height on the N or E bank and the river there is a meadow that is flooded at high-water and shows signs of being marshy. The population crosses it unwillingly and with a degree of caution bordering on the absurd. All the places that were pointed out to me as marshes were ridden across without trouble. Crossing the fields of the inhabitants, however, the horses really did sink in; they are the marshiest places of the district, at any rate at this time of year. It may be different, of course, during the time of high-water. The district is densely populated. Houses and trees run in an unbroken line on either bank of the river. On the eastern bank Wakhpe with 40 houses is followed by Beshtugemen with 250 and Kökbash, Khodja Baskak with 100 houses, Ajavak with ${ }^{15}$, Jagarche with 200, Beshvak, Pääishi, Kalkal, Tuplik with 30 each, Qarakul, Qosh Ingrak, Qarajantagh with 30 and Sarksu with 50 . Between Beshvak and Päläishi
and Beshtugemen on the eastern bank there are two ferries. A third keeps up the conneciton between Tuplik and Kökbash. The western bank is reached by means of it. The barge that carries people and animals consisted of a single hollowed-out tree-trunk of irregular lines; only the stern was pointed. The river bed is 40 fathoms wide, bottom firm and speed $10 / 9 \mathrm{~m}$ per second. No marshy places could be seen on the western bank. About a dozen fishing-rods were stuck into the ground on the bank with thick string as a line and corks of the most primitive kind. Frogs are used as bait. A boy had been set to watch them. The river turns eastward here, but we struck it again a mile or two further on, ever faithful to the western bank. It is only from the level of the village of Qosh Ingrak that it crosses to the opposite bank and we only saw it again at the bridge on the KashgarMaral Bashi-Aqsu road. The fields on the western bank seem to be about two miles in width. Mountains are visible in the background. Between the villages of Qarakul, Qarajantagh and Qosh Ingrak, lying slightly to the west of the river, there is a very considerable barren sandy plain.

Shortly before the bridge, we reached the Kashgar road with its telegraph line carried on very high poles at a great distance from each other. Between two of the poles the line hung down almost to the ground. The speed of the water at the bridge was the same as ten days ago, $10 / 6 \mathrm{~m}$ per second, but the quantity of water was larger, especially in the northern arm which flows about $2 / 3$ of a mile north of the first, which we rode across.

It was still II-12 miles to the Sart town and it was quite dark by the time we reached the house of the aksakal after quite 12 hours in the saddle. Ismail welcomed me with a plate of steaming soup, and the pleasant knowledge of having completed the survey of the river for a distance of over 220 miles contributed not a little to the modest pleasure of the repast. My diary was given a rest, also the thermometer and barometer in their cases, while I crept at once into bed without requiring any persuasion. Neither the aksakal's musical box, nor the bites of fleas were able to disturb my night's rest

It has taken six days to copy my road maps, a piece of work that I would have liked to postpone until my return, if I was not afraid that my pencils might disappear and the map become unintelligible. Visits from the Taotai, Djentai, Shenguan and another mandarin made considerable inroads into my time. Besides, I was invited to dinner by the Shenguan to meet the Taotai and Djentai, an entertainment that was completely put into the shade by an entertainment with music, theatricals and target shooting that the Djentai arranged in my honour to-day. The general, who was so polite as to call on me in the old town, when he heard that I had intended to call on him (my card was not received in his absence), made a very good impression on me. A lively man of 60 of herculean build, who looked 50 at the most, interested in many social problems, but especially in his profession, and thoroughly convinced of the necessity of thorough-going reforms in all departments of the life of the people in China. His call on me at 9 in the morning was evidence of his not being in the ranks of the opium smokers, were his healthy appearance not sufficient proof. He spoke with interest of the last Russo-Japanese war, the causes of which he discussed with a clear perception. The course of the war, he maintained,

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The Djentai in . Hysu.
was by no means unexpected. He had seen Russian troops before and thought them bad. Nobody was afraid any longer of the liger that had devoured so many nations (Russia). He considered that there was no serious clash of interests that could provoke war between Russia and China, nor did he believe in the possibility of a fresh war between Japan and Russia. The former country was sufficiently exhausted by the last war and the latter had neither the strength nor the courage to start a new one. Military reforms in China were indissolubly connected with reforms in all departments of social life. Although there were many opponents of all that was new, fresh partisans were being gained each year for reforms after the Japanese pattern. Japan's amazingly rapid development was proof of the possibility of China's awakening in the near future from her centuries of sleep. The Japanese were closely related to the Chinese, and what the former had succeeded in achieving, the latter would also accomplish. Peiping was constantly urging energetic work for carrying out reforms. The most necessary things, however, were new laws and educalion. With education the conviction of the necessity of reforms would become general. In Eastern China the army had been reorganised and conscription was to be introduced. In the province of Sinkiang new exercises, new uniforms, military schools and various other reforms were to be introduced, but the deciding factor, said the old fellow, would be the railway line to Urumchi. Once that was completed, they need not fear anyone. Before it was built fresh troops would scarcely be sent here, as the cost of each man's journey now amounted to about 200 lan and the peaceful condition of the country rendered an increase in the garrisons unnecessary. The Sarts and Kirghiz were too cowardly to do as soldiers. The idea of recruiting troops among them had been given up. He attached the chief importance in a soldier's training to target shooting. He had done away altogethen with old-fashioned Chinese fencing and exercises. Unfortunately, he was still forced

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to use old muzzle-loaders in shooting. In spite of constant demands he could not obtain cartridges in sufficient quantities from Urumchi for his magazine rifles. The reason was the shortage of cartridges in the province of Sinkiang. The army's magazine rifles consisted chiefly of Winchesters ( 9 cartridges), of which there were ${ }^{115} 5,000$ bought through the Djentai at ıo lan each with cartridge pouches and belts. Mausers 7184 were far more scarce. He preferred the latter.

When I arrived at his yamen at $I \mathrm{I} .30$, I was received by a large company with the Taotai and the Wu (the inspecting mandarin, a man of 32 ) at their head. In one of the pavilions in the outer courtyard of the yamen some Chinese musicians were performing on their clarinette-like instruments. Their tones took me back to the summer of 1905 which I spent with my regiment in the neighbourhood of Tchendziantun (in Manchuria) with Chinese funereal music as our daily fare. In the next courtyard there was a guard of honour of about twenty men with three trumpeters and an officer on the right flank. Just beyond the middle gate the Djentai awaited me, arrayed in his official garb. He led me across the large inner courtyard, where receptions are usually held, to another on the right which also had its characteristic Chinese official hall with a throne-like sofa and stiff, straight armchairs in the background. Facing this hall, the front wall of which, made of boards, had been removed, there was a platform raised on piles which served as a stage. You find this in all Chinese yamens and courtyards of temples. A large number of mandarins were collected in the hall. Here I had the pleasure of pressing the hand, or rather hands, of the amiable old Taotai and making the acquaintance of the higher local officials, both civil and military. As a mandarin's whole staff wears the traditional mandarin's hat with a red silk fringe and a long peacock's feather protruding at the neck, you are at a loss to know whom you should greet of the dozens of men you meet at such a ceremony, all in


The guard of honour at the Djentai's on the occasion of the author's visit.
similar hats. There are no introductions, you simply greet each other. On a couple of occasions I made vain efforts by approaching a very dignified Chinaman to provoke the charming smile that always accompanies a Chinese greeting, but his demonstrative stiffness convinced me that he was a servant.

Tea was served at once. I was given the place of honour, on one of the bearskins spread on the sofa in the background, with the Taotai on the right of a small table between us. The other guests occupied the armchairs upholstered in red cloth that faced each other in two rows towards the exit, strictly observing the order of precedence. The general sat furthest off. A company of amateurs - soldiers -- in bright costumes performed a noisy play of some former dynasty. While the table was being laid for dinner in the courtyard between the hall and the stage, the general proposed that we should do some target shooting. A target was placed against a massive clay wall built for shooting at one end of a large training ground lying within the area of the yamen. On the opposite side of the ground there was one of those clay pavilions, all built to the same pattern, from which the superior officers watch the drilling and shooting. The general forced me to shoot first, standing in the pavilion, where a crowd of servants had brought tea and various kinds of cakes. My first shot was a hit, my second a miss, the three others hits. The general scored 5 hits. After us three colonels, about a dozen junior officers and about 15 others, either soldiers or officers of the lowest rank, shot kneeling on the left of the pavilion. The distance was 200 metres. The practice shooting of the Chinese army, at any rate in this province, is always done at this distance. Each man fired three shots - every one a hit. The hits were signalled by some soldiers behind a protecting wall waving a flag and beating a muffled drum. The host invited us to shoot from a greater distance in a back courtyard. Again a large open space with the traditional clay pavilion, still within the spacious walls of the yamen. The distance was now 300 metres. As the place was divided into garden plots and beds of flowers, I suppose that the range, made by a wide opening in the wall,

had been arranged for the general's personal pleasure. to this distance ecrione sored hits except one of the civil mandarins, who made three vain attempes. Even in shouting Chinese etiquette is not forgoten. Three old colonels, of 50 or 60 , advanced, carrying their rifles over their shoulders and with a tired gait, owing to opium smoking or age, formed up in line and bowed simultancously, the fingers of their right hands touching the ground. The Djentai rose and so did all the other mandarins, whereupon the old fellows jogged along to the firing line. After they had fired, the ceremony was repeated and was gone through by each group of marksmen. I made the same kind of bows to the excellent general which amused the mandarins very much. Feeling awkward at alway, having to walk in front of the venerable Taotai, I tried to get out of it in the garden by climbing over a ditch next to a small bridge. Without a moment's hesitation the old man, helped by a servant, followed in my footsteps across the ditch, avoiding the bridge and followed by the whole crowd of mandarins. When the shooting was over, the target was examined and all the hits were found correctly marked by inserted pegs. The shots, however, were very scattered on the target which was the height of a man.

On returning to the court containing the theatre, over which an awning of blue cloth had been drawn, we were invited to table. Each name is called in a loud voice by a servant. while the host murmurs a few words with an affable smile and places a glass of steaming Chinese wine and two chopsticks in front of the guest, after having raised both objects ceremoniously to his brow. When he has finished and the servant is ready to serve him, the same ceremony is performed by the guest of honour and I did it faithfully with the exception of the words. Then the guests approach the host and make the Chinese obeisance, to which he replies, after which the company take their seats. Immediately after, the official hats are exchanged for ordinary Chincse silk caps. The dishes on this occasion


The Djentai in Agsu firing at a target.
were innumerable and were served at fairly long intervals, presumably to give the guests a chance of enjoying the performance on the stage. Before each course the host urged the company by a general gesture to empty their glasses. As soon as you had sipped a little out of your glass, it was filled again with warmed-up wine, this being done by all the glasses being emptied into a tea-pot that was placed on a coal-basket and filled from another that had already been heated. The tea was treated in the same appetising manner. From time to time the painted table was wiped with a wrung-out towel and several times towels wrung out in warm water were offered to the company to cool their faces. - The performance on the stage went on without interruption and one play succeeded another. A couple of times I was asked to select a play from a list on three red bits of board, and by the fuss my neighbours made, when I passed the boards to them, I realised that this was a special honour. When we left at last after six o'clock, I was more exhausted than if I had spent 12 hours in the saddle and I lay down at once for an afternoon nap, a luxury I had not indulged in for eight months.

March 2Ist. Yesterday I called on the Djentai by arrangement to photograph him and his Aqsu. family, which I was all the more ready to do, as in these countries there is always some difficulty in obtaining permission to photograph Chinese ladies. After drinking tea and spending another hour on the shooting range in order to test my rifles, this time with a miss for the Djentai and nothing but hits for me, I was conducted to his private apartments, also situated round a large rectangular courtyard, the fifth in order from the entrance of the yamen and extremely reminiscent of the others. He called to his wives, three in all, that "Ma ta-rin» had come, and soon two of them appeared from either side of the centre hall, strutting or swaying on their tiny feet and surrounded by a group of children and

servants. They all wore costly dresses of bright-coloured velvel and silk and numerous ornaments, ear-rings, head-bands, finger-cases of silver etc. There were no introductions and we merely bowed to each other at a distance. Two young men, whom I had taken for pipe-carriers or some other kind of servants owing to their coloured jackets with small buttons, proved to be his sons, one of them 16 years of age and already married. They posed in a symmetrical group with the Djentai in the centre. After the photographs had been taken, we returned to the shooting range, this time to admire the proficiency of his wives and daughters. They followed us presently, marching in in other dresses, also very costly, and surrounded by the same crowd of servants. Without any of them raising their eyes to the pavilion in which we were, they passed on to the range. With the permission of the Djentai I took a couple of photographs of this curious group. The couple of dozen shots they fired at a distance of about I 8 o metres were all hits, to the great delight of the Djentai.

In the afternoon I reconnoitred the surroundings of Aqsu and in attempting to ride over what I thought was an insignificant ariq, I suddenly saw my horse disappear entirely under the water which came up above my waist. Luckily it was not wide and in a couple of jumps Philip was on the other side. I rode home soaked by the cold water and with a couple of spoilt mapping sheets.

In the evening I received a visit from the Djentai. He stayed for quite an hour and entertained me with all kinds of talk. Among other things he knew of three great men in Europe: Bismarck, Napoleon and Washington. He was persuaded that the Japanese had now got the measure of the Germans. China, too, would henceforth only take instructions from the Japanese. A tin box with 500 cigarettes with gilded mouthpieces packed in small tin cases with the portrait of King Edward gave the old feilow much pleasure and we


The Dientai in Agu with his wies, chiddren and vercants.
parted from each other the best of friends, when he left in the dark accompanied by his servants with coloured paper lanterns.

Chinese Aqsu is a comparatively tidy town, if lidiness can be spoken of al all in connction with this country. Two main streets run through it, one in particular having many rich Chinese shops with good stocks of cloth, garments, ornaments, toilet articles and luxurics, china, and metalwork of Chinese or Japanese make. The three large infantry barracks within the town wall, the Djentai's large yamen and two cavalry barracks in close proximity to the town prove that the Chinese have not been blind to the strategic importance of Agsu, its position at the point where the roads to Kashgar and Khotan branch off, making it, in a way, the key to Chinese Turkestan. But here, again, the garrison is reduced to a minimum and the men with their features worn by age and stamped by vice present a pitiable appearance. In the $E$ and $N$ the town is enclosed by an eminence of 2 or 3 fathoms, leading to a barren and waterless plateau of löss; in the S and W it is confined by the Dulan ustang, an arm of the Aqsu darya that flows from the place, where the Aqsu and Taushqan darya unite. From the middle of May to the middle of July the water is so high that it cannot be forded. Otherwise the depth seldom exceeds $4^{\circ}--80 \mathrm{~cm}$. The breadth varies from 5 to 10 fathoms. The whole area below the plateau of löss is cultivated and inhabited, though the houses are not close together anywhere. The fields are marshy in some places. North of the town a Sart bazaar of appreciable size has grown up. The bazaar street extends for quite $2 / 3$ of a mile in the NW and almost reaches the ridge of löss which describes a curve and leads to the Aqsu of the Sarts

## CHINESE AQSU

The inner dimensions of Chinese Aqsu from wall to wall are about 300 m . No corner towers. The protected area is 28 fathoms wide. The parapet 4 fathoms high. Inner wall of gateway 23, outer wall 20 feet wide at the base. Middle projection about 28 mm in width and depth (?). Fosse 4 fathoms wide, 3 feet deep. neglected. The wall of unbaked bricks. 2 clay buildings of about 10 $m$ in length on the ramparts between each projection. Inside the wall 2 main streets running approximately from one gate to the other. Government buildings, surrounded by walls close to and just outside the W wall, close to the S and E walls and in the centre of the $\mathbf{N}$ half of
 the town.

The area above the eminence is a barren plateau of löss. Below all the land is tilled, with scattered houses. no large groups of houses excepting the N bazaar. Fields slightly marshy in places. Dulan üstang 5-io fathoms wide. Impossible to ride across from the middle of May to the middle of July. At other times possible almost everywhere, the depth varying from 0.40 to 0.80 m . - Drawn by the author.

My stay in Aqsu and its neighbourhood proved longer than I had expected, as seems often to be the case in Central Asia. This was mainly due to the difficulty of collecting some statistical materials through a poor and, especially, sleepy interpreter and to a good deal of time being taken up by mapping. My principal oracle, besides the aksakal, was a curious old mullah, who is employed by the staff of the yamen for various jobs, a peculiar fellow, who kept clearing his throat and spitting into his top-boots, so as to spare the aksakal's lovely carpets. He had a mass of information noted from documents in the yamen and was all right so long as you stuck to his notes and took them in order, but if you were obliged to change the order, the old man was completely at sea and read long extracts from his notebook that had nothing to do with the question. If I add that he was so frail and so sleepy in the evening that any work after 8 p.m. was out of the question and that I was constantly otherwise engaged in the morning, it will easily be understood that during a few short evening séances, interrupted furthermore by the disappearance of the old fellow to say the obligatory Mohammedan prayers, I was not able to get very far. It is a pity that I cannot reproduce his looks, as he communicated what he obviously thought were state secrets in a low voice. It was priceless to see the old man stagger out about 8 o'clock, completely doubled up and supported by the aksakal and myself, utterly exhausted by each meeting.

We started to-day at last. Thanks to the astonishing kindness of the Chinese authorities, fodder has been arranged for at all my camping places up to Mazar bashi, including the

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The Djentai's family targel shooting.
glacier. Owing to this circumstance I did not need to hire more than 8 pack-horses for carrying fodder for the journey of not less than 17 days. As each horse costs 14 r. 50 c ., I have every reason to be grateful for their assistance.

Yesterday I received presents from the Djentai and the Taotai, from the former a piece of beautiful white Chinese silk, a tin of tea, 5 fresh wheaten loaves and a tin of thoroughly rancid fat or butter; from the latter two tins of tea and two cases of delicious Chinese teacake. To the benevolent old Taotai I assigned a steel watch with the head of a southern beauty enamelled on it and my interpreter told me that the old fellow was delighted.

After thanking the aksakal for the pleasant days I had spent in his excellent room, we started over Muzart to Qulja. I presented the kind old man with a silver watch and chain, having succeeded in setting the watch going - to my own surprise. On the Eedge of the town the road leads up to the ridge of löss through an extensive mazar with its sombre tombstones of clay. About two miles further we passed the remains of houses abandoned a few dozen years ago. They formed three separate groups. There was no sign of water, all was barren and desolate for miles around. About 6 miles NE of the town there are small groups of houses with their fields on either side of the road. They are built along the sides of a number of small mountain rivers which bring down sufficient water for the ploughed fields in the spring and summer and after rain in the Mustagh mountains. We rode in succession across the beds of the Ilek, Paman, Djagde, Qizil, Tumenyng, Shatomen and Djai toghra üstangs, bone-dry at present and covered with fine sand. They are almost horizontal in position and very slightly below the surface of the land with indistinctly marked limits. Over all of them, except the Ilek and Djagde üstangs, there are very bad bridges which it would be easy to repair thanks to the wood available in the villages. The road runs uninterruptedly between rows of trees. The villages form small groups in the surrounding country, which is largely untilled. The

road is good, though very sandy. We pitched our camp in the courtyard of a big sarai in the village or bazaar of Jam, about 9 paotai from the town. All day a high wind blowing in our faces had stirred up clouds of sand and dust that forced their way into everything.

At Jam we left the main route and its fairly comfortable night quarters. Our March road took us in a NNE, almost in a N direction, until, after riding about 8 paotai, we reached Avat. a chain of mountains running in a NW-SE direction and forming the southern extremity of the Tian Shan mountains. After crossing the modest field area of Jam we entered a large, barren sandy plain rising to the north towards the chain of mountains that was dimly outlined in the cold grey morning light. The wonderful range of mountains enveloped in snow, with its summits rising towards the clouds, which were so clearly visible from Aqsu, was hidden entirely by heavy leaden clouds. The wind, considerably lower than yesterday, came in gusts from the east. The weather was cold and penetrating. At about II we encountered a heavy hailstorm with a NE wind and half-an-hour later it began to snow and still continued at 5 p.m. Visibility was extremely restricted and mapping difficult.

Immediately to the N of the Jam fields we crossed a dry channel of the Djigitche üstang which seemed to bring a little water from the mountains. After a couple of hours' ride the plain was slightly overgrown with grass growing in low tufts, called wchakande" by the population. The rise grew steeper, the ground was covered with rough gravel and stones and all vegetation ceased. Just before reaching this slope of gravel we passed an abandoned mud hut, close to which there were signs of an attempt at conducting water from the mountains along an ariq, evidently also abandoned. The horses kept stumbling on the rounded stones.

About i p.m. we reached the mountains, after riding for six hours. They are called "Tuzkan", because the local population quarries salt under the upper layer of clay. The Avat, a small mountain river, flows SSE with a loud roar from a cleft about 300 fathoms in width. The road went along the steep western bank, at the foot of which we saw the noisy little mountain river. Twenty minutes later we came to a large, though very ruined sarai which afforded welcome protection from the rough weather. Next to it was a small mud shelter with a Chinese altar and some Chinese characters on a paper glued to the wall. A crowd of men and women had encamped in the sarai before us. Their peculiar felt \#stockings" and shoes or sandals of fur, laced with thin string and with the hair on the outside, indicated that we had entered country different from the highways of Chinese Turkestan. No fodder had been sent here as promised by the Chinese authorities. Fortunately, we carried sufficient for the moment; we can replenish our supplies to-morrow at Qizil Bulaq. N of the sarai the cleft seemed to widen slightly and provide space for a narrow strip of earth with some trees.

During the day we met some caravans of donkeys with salt from the mountains and some shabbily dressed individuals on foot coming from the village of Qizil Bulaq about 42 miles from Jam. Two old women walked all this distance in order to sell a hen each, representing a value of about 15 cop.

At Avat the snow lies for about three months and is about the height of a man in depth. There are about 10 burans in the spring and about 4 in the autumn. There is a group of villages containing roo-iro houses in all on the upper reaches of the Avat. There is no cultivated land in the vicinity of the sarai, nor can any supplies be reckoned on there except fuel and small quantities of hay. Passing caravans sometimes sell superfluous fodder, so that occasionally you can obtain some maize or barley.

March 28th. The snowstorm continued with unabated severity, when we started this morning. Qizil Bulaq The snow almost came up to the horses' knees and the wind whipped the fiakes into village. our faces. It was no easy matter to map the road and keep the paper from getting too wet. You could not see more than $150-200$ feet ahead and there were no traces to indicate the road. It was not long before the yigit or sjai,, whom the mandarin had sent to accompany me, declared that he could no longer find the way. I sent back Rakhimjanoff to request the Yuzbashi, who had arrived with fodder during the night, to accompany us. Soon, however, he also was not certain of the direction. Almost as soon as we had started we entered a gorge about 200 paces wide with a dry rain channel and followed it for about three hours. The mountain on either side is called Tope tagh and forms a kind of continuation of the Tuzkantagh near Avat. In places the gorge grows slightly wider, especially where it branches. As there are very numerous branchings and the off-shoots are about the same size as the main gorge, it was indeed easy to go astray. About an hour from Avat a few trees and large bushes grow in the gorge, especially in the wider places. A couple of times our two guides thought they had mistaken the gorge and there was nothing for it but to retrace our steps for a considerable distance. In about three hours they declared that there was no doubt they had taken the wrong road. We
had a short consultation and decided to try and reach Tope dawn (the pass) over the mountain, which is on the right road. After wandering for quite an hour in a veritable labyrinth of smaller hills that form the southern spur of the fairly large mountain ridge of Tope, we at last caught sight of a caravan that had come over the pass in the opposite direction. We steered towards it and presently met some merchants with about 30 packhorses on their way south from Qulja. They were not merely browned by the sun, but practically black, the colour of their faces reminding one of a pair of much worn and polished tan boots and their expression being very grave and tired. The horses were in good condition, but their coats were much thicker than those of our horses. In another half-hour we reached the summit of the Tope dawn pass. The snow had ceased, the wind had dropped and the sun was shining in a clear sky. Some horsemen were encamped at the top of the pass and were munching some bread, while their horses were getting their wind after the ascent. The view was wonderful. To the $S$ and $N$ a confusion of ridges, small summits and hills under a dazzling cover of snow. In the E and W a beautiful slope, disappearing on the horizon in the E and bounded in the N by a majestic chain of mountains which we hoped to reach on the morrow. The pass itself is fairly accessible. From the SW the road goes zigzagging NE following almost in detail the course of a rainwater channel. The road is steep, but vehicles with good horses should be able to get to the top.

Once it has reached the foot of the pass the road goes almost due N and leads practiceally straight to a little village, Qizil Bulaq, with o houses, situated at the foot of the montain. There is a sarai and a certain quantity of fodder at reasonable prices. Some of the caravans buy the fodder for their journey here. The annual sowing of the whole village amount to about 100 tcheraks, of which $60-70$ per cent is barley and $30-40$ per cent wheat. Wheat yields a $3-4$ fold crop, barley up to $7-10$ fold. There are about 15 buran in the spring, 5 in the autumn. There are roads from the village, besides the one we came by, to the group of villages on the upper reach of the river Avar and to another group on either side of the river Muzart, $N$ of the Aqsu-Kucha road. Both are said to be mountain roads, impassable for arbahs. The distance from Qizil Bulaq is about 10 miles. From the group of villages on the river Muzart there is an arbah road to the Aqsu-Kucha highway, but not from the former group of villages.

The caravan, which had been following my tracks and had also gone astray, arrived late at night. And yet the guides had travelled this road for years. It was long past bedtime before the pälaw was ready at last and we got some food after 15 or if hours' work and exposure.

Replenishing our supplies of fodder delayed our start and we only got under way March shortly before 8 . Splendid weather. A clear sky, a hot sun and the wind, for a rangi. change, at our backs, to which none of us raised any objection. Five minutes' ride took village. us out of the little village in which we had spent the night. The road went north and the further we went, the greater was the rise. The ground is sandy, strewn with gravel and stones, and there is a small group of hills just $S$ of the valley of the Muzart. We got

past these hills through a cleft and reached the foot of the mountain range that forms the western wall of the Muzart valley. The sound of rushing water betrayed the proximity of a mountain river. The mountains divide here and a valley, or rather gorge, about a mile in width, leads northward as if into the innermost recesses of the mountains. The western wall of the gorge is called Dösh tagh; the eastern wall is called Kash ksö or Kalta Jailak tagh. In comparison to the overwhelming size of the mountains it seems very small and insignificant. The entrance is protected by a small fort in the form of a square, 200300 paces long, the northern wall being extended as far as the mountain walls. The northern corner of the fort is formed by slight semicircular projections northward. The walls are $2-2 \mathrm{I} / 2$ fathoms high, of clay and rough stone, about I fathom thick. On the north a moat, i fathom deep and broad. The whole fort is in ruins, but could easily be restored. The population calls it Kurgan or Kuna Shahr. I tried to ascertain whether some old ruin had not given rise to the latter name, but could get no explanation either in Qizil Bulaq or Kuna Shahr itself, except that it had been given in connection with the fort mentioned, built by Yaqub Beg. The aksakal in Aqsu maintained, however, that next to the fort there was a Kalmuk "Shahr" of which no ruins were left. During Yaqub Beg's time he had had to supply the garrison with clothes and had often visited the spot. He had never heard of any interesting finds.

The road leads through the fort, within the walls of which a couple of dozen Sart peasants live, and in which a Chinese Customs office and a minor official for visé-ing passports are established. The river Muzart, which is a mountain stream of $11 / 2$ to 2 fathoms in width at this season, flowing rapidly and noisily, runs along the eastern mountain wall here. It has cut a channel, two or three fathoms wide, in the soil consisting of sand, gravel and stones. The road goes northward with an inclination to the NW. At first the valley is

fairly level with a good deal of grass that protrudes from the snow in tufts, but soon the ground becomes very stony and is intersected here and there by crevices with rainwater channels at the bottom. The valley has a very perceptible rise to the north, and the further you go, the deeper the river seems to have cut into the ground. It approaches first one mountain wall, then the other. When it runs at the foot of the western wall, the road becomes quite breakneck, winding along narrow ledges of the well-nigh perpendicular bank or the no less steep mountain wall. You either climb upwards or follow a steep path downwards. The ground consists of gravel plentifully mixed with large stones. Now and then you find a stretch with large blocks of stone, often of very large size and worn into fantastic shapes by the storms. Where the path has been washed away by rain, the road is strengthened by a trelliswork of branches or defective small bridges thrown across the precipices, the transparent green water of the river roaring at the bottom. The horses climb along this path, frequently very slippery from the melting snow, as calmly as if there were not the slightest danger. The mountains consist of a row of summits, divided by rainwater channels, that form, as it were, a connected chain. High up on the mountains you see groves of firs, apparently tall, at times like a dark-green fringe along the projecting edges of the mountain, at others sticking up on the other side like a line of never resting soldiers guarding this grand valley from their inaccessible walls. It is useless to attempt to describe the beauty of this wild scenery, you must see it to be able to imagine the changing views that succeed each other the farther you penetrate into the gorge.

About eight hours' riding brought us to the village of Yangi Mähällä, where we were to spend the night. Seven wretched farms with such low houses that, whenever you stood upright, you almost lifted the rotten roof off the walls. Barley is grown on some poor strips of field and in good years yields up to an 8 fold crop.

March 3oth. During the day the gorge turned more and more in a W direction. The mountain walls Kailik. describe two parallel arcs in a NW direction and towards the end of the day the course of the road is almost $W$. At first we rode practically N past a small cemetery just above the village. In a mile the comparatively level slope, on which Yangi Mähällä is situated, is succeeded by a spur of the mountains that forms a sort of stopper in front of a cleft in the western chain of mountains. The ascent is fairly steep and the whole slope is thickly strewn with large blocks of stone that have been hurled down from the mountains at some time, so thickly, indeed, that the horses could not find a footing between the stones and had often to climb over the slippery stones that were piled up at times like a large staircase. In less than a quarter of an hour the road ascended almost 200 metres. The slope drops perpendicularly to the green river roaring far below. Philip, my horse, was equally fascinated by the view and kept going along the extreme edge, so that I began to suspect him of contemplating suicide. On the north side of this slope, close to the river and protected by the steep bank, there is a small grove. This place is called Turpak and was formerly used as a halting place for caravans. Close to the ledge of the bank stand the walls of a sarai, now abandoned. For about two miles the river keeps close to the E mountain wall. The banks near the river grow trees for a distance of about $21 / 2$ miles from Turpak. The road rejoins the river at a spot, where it comes from the NW and runs for a short time below the ledge of the bank through a grove growing in the valley of the river. The western bank that had been comparatively low for a short time, began to rise again and the road led on to the ledge of the bank. The river which had returned to its almost N course, again bent to the NW round an eminence formed of masses of rock that had tumbled fan-like from a cleft. Three water channels seem to find their way down to the river through the stones. A mile higher up, the slope appeared to become comparatively smooth, but in a few minutes we were again on very rugged ground covered with stones of all sizes. The bed of the river grows wider here and forms an almost horizontal stony bed, about 50 fathoms wide, lying slightly deeper than the nearest level of the ground. The river winds along it in an arm of about three fathoms' width, sometimes in two. From the NE a broad water channel with a stony bottom seems to supply it with water from an enormous cleft in the mountains. In another mile and a third we came to a place, where trees were growing, and where the river described a curve to the south after coming from the WNW. Here the mountains adopt a more and more W direction. The eastern mountain in particular is overwhelmingly high, its summit being lost in the clouds. A mile or two higher we reached a grove of trees jammed between the steep western mountain and the bed of the river which is fully 80 fathoms wide at this spot.

At the very foot of the mountain there was a large, but rather tumbledown sarai. The stoves had fallen to pieces in some parts, the windows had no paper nor even frames and there were large holes in the walls filled with boulders, and yet we sought shelter with a feeling of pleasure behind these imperfect walls from the wind that had pursued us all day. The watchman gave up his room to us. The glass in the window was replaced by pieces of paper of various age and colour, a piece of dilapidated cloth and a bit of yellow cardboard with "Sunlight soap» in large letters. To prevent my candles going out in the
draughty room I piled up the window with a packing-case and various garments. This is the last halt with wood on this side of the glacier. Three men with bandaged and frostbitten faces, and a few carcases of horses reminded us of the seriousness of our undertaking. A heavy mist had spread over the mountains and shrouded their upper parts. There are usually about a dozen severe burans here in the spring and about two in the autumn.

The road is used most in February -April and August - October. During the winter the cold is so intense that very few people select this road. In the summer the current is so swift over the large stones in the bed of the river that it is very difficult to cross. Horsemen can get across, but not pedestrians, and it is too risky to take pack-horses over the roaring water. Traffic practically ceases at that time. The watchman of the sarai sells fodder to passing caravans at exorbitant prices as a subsidiary source of income

This day's journey was not more than about five paotai, but on the map it is much shorter, as I have deducted quite an hour for bends in the road, rises and falls

A miracle occurred this morning - my men were up at 5 a.m. and the caravan got off by 6.30. The distance from Kailik to Tamga-tash is supposed to be 12 paotai, an appreciable March distance, when you have to make a road-map, especially if the road curves a good deal. Now, after making the journey and calculating the distance, I cannot make it more than 16-17 miles or in other words 6 paotai. It is indescribably difficult to calculate distances on the basis of the statements of the population. According to my experience a great distance should always be reduced considerably, but a short one should often be doubled or trebled. I explain it by the fatigue that enters into the equation, so that a long distance appears even longer than it is in reality. The figures are also greatly exaggerated, if the distance to be travelled is over rough or very hilly country. I read somewhere that the Chinese, when calculating a paotai, make it longer or shorter according to the nature of the ground, and whether it is level, rises or falls, i.e., they convert the effort, too, into distance. I have been able to check on many occasions that they are not always of the same length.

For about two-thirds of the day's journey the river flowed in a SE direction, i.e., the road took us NW, while during the remaining third it went N , at times even NE. The character of the river valley had changed. Instead of the two steep slopes that led during the previous days from the foot of the mountain to the river, flowing mostly in a deep and narrow bed, there was now a broad and stony bed, in which the river at times divided into several arms, and from the foot of the mountains there were slopes extending for a considerable distance only in places. The banks of the river are covered with grass, toghraq bushes and a very low coniferous plant natchin, the ash of which is mixed with tobacco and used by the population. There is very little smoking here, but almost every Sart has a wad of tobacco mixed with this ash either under his lip or tongue.

No trees were visible except the grove near Kailik and another at the mouth of the Tughe-belche gorge. There were fewer clefts in the mountains than during the previous days. The arm of the river leading from them seemed to be on the same level as the river


> Mountains $W$ of the river Muzart between Yangi Mähällä and Kailik.

and to be comparatively wide with a horizontal bottom. The mountains were still overwhelmingly high and large and their walls were often steep, almost perpendicular. In some places they appeared to be even higher than during the last few days, but it is, of course, impossible to judge the height of these giants with the eye alone. The width of the valley is about $2 / 3$ of a mile, at first, perhaps, slightly less and towards the end of the day a little more. In a couple of places the ground was fairly level, but otherwise very stony. About halfway the valley is intersected by two small ridges projecting towards each other from either mountain. The river has cut a deep bed here that bisects this large natural dam. (These heights would make an excellent position with the entirely flat valley in the S , about 2 miles in length, if it was necessary to close the road to an enemy advancing from the S.) Immediately to the N of this height which is called Qumbal there is a large cleft in the W mountain, called Tughe-belche, with a rainwater channel. North of the Qumbal ridge there are parts that project some distance at two places in the E chain of mountains. At the end of the Muzart valley, or rather at its beginning, it divides into two parts. From the west the Qarakul gorge opens with a river of the same name and from the north the river Muzart takes its source from a glacier between the mountain walls of the valley. A high mountain, Utang tubasndigiqara tagh, stands in the fork between these two rivers. At its foot lies a tumbledown sarai and the ruins of one of those guard-houses that were built more or less everywhere in Yaqub Beg's time. The place is called Tamga-tash after a number of inscriptions made in the foot of the E mountain opposite the sarai. Numerous traces of fires prove that this place is a favourite camping ground for caravans. The inscriptions are all new, at all events I was unable to find one belonging to former centuries. There is an old watchman at the sarai, but no wood or fodder. If someone turns up with wood, the old man warms himself, otherwise he has to resign himself to the cold. Five burans in the spring, 3 in the autumn and $5-10$ in the winter.


There was a regular gale throughout the journey. Whenever we rode close to a mountain wall, the horses were almost blown over. Towards evening the wind dropped slightly. Rakhimjanoff complains of headache and a cold. - The ground over which we travelled to-day was rough and very stony. With a few exceptions, however, it is fairly level. On this stretch it would not be impossible to make a track for vehicles, which could not be done on the stretch covered on the previous days except at heavy cost and with much labour.

It was originally my intention, after climbing the glacier, to spend the night on the summit in a cottage occupied by eight labourers, whose duty it is to cut steps daily in the ice Khanj and make bridges of stones across any new fissures that open. However, the apprehension of possibly being delayed another day or even two by a buran in this neagle's nest», which would have seriously upset my calculations in view of my limited supply of fodder and almost entire absence of wood, induced me to decide, in case the weather was fine, to go straight on to the sarai at Khan Jailik about 20 miles from Davan or Muzart bashi. We started at 6.20 a.m., but actually got away a little later, because I allowed myself to be tempted by some ibexes on the heights behind the sarai. At the moment, when we were about to start, Ljo discovered them grazing on the slope quite close to us. It was the work of a few seconds to dismount and take my Mauser from Rakhimjanoff, but in the meantime the goats had crossed to the other side of the crest of the hill. I set off in pursuit, but it was by no means so easy to climb the hill as it seemed from below. It took my horse fully 8 -io minutes to make its way zigzagging up to the top, and when we got there, there was no longer any sign of the beautiful creatures with their bright, sabre-like horns.


Glacier at the $\mathcal{N}$ end of the Muzart valley and the Tamga-tash sarai.

The ascent of the seemingly not very considerable glacier begins at the sarai. The road zigzags and the higher you get, the worse it grows. The horses' sinews and muscles have to do some stiff work, as the upward paths are so steep. Bits of level ice are rare and very short. There are gravel and rough stones everywhere. In a short time the horses were sweating from their exertions, but we went on upward without mercy. After climbing uninterruptedly for a couple of hours I was able to shoot a fine eagle that had settled on a block of ice and was on the look-out for some abandoned horse. I called to the yigit that he should climb up and fetch the eagle, a fine specimen of 2.12 m from wing to wing, but it was unnecessary for him to do so, for an individual appeared from his hiding-place behind a block of ice, who seized upon the bird in an instant. This was one of the eight labourers, who keep a look-out from the summit of their mountain and meet caravans in order to help them over the most difficult places. It was a stroke of luck that he and his companions were not sitting in the line of fire beyond the eagle, for I might have hit them without being aware of it.

The most difficult place for the horses are some famous ice steps, about twenty high and slippery steps that are cut daily at a spot where the road is very steep. On reaching the steps the loads are taken off the horses and carried up by these excellent labourers, who climb the steps more easily with a sack weighing 4 poods on their backs than we do with nothing but our furs. The horses frequently slip and fall on these slippery steps and the Qarakeshes help themselves to climb by holding on to a horse's tail. Just beyond the steps the loads are lifted on to the horses again and a little higher up a halt is made at the Muzart mazar on a small level space near the E mountain, called Davan bashi tagh here. Above the mazar on a projecting rock a clay hut has been built, in which the eight labourers live and where caravan leaders and others often seek shelter from bad weather and cold. Not

A rest during the ascent to Muzart bashi.

many, however, can find room in the tiny hut; the rest have to camp as best they can behind a couple of mud walls without any roof or behind walls improvised of sacking. We got to the top by 10.30 , but it was 12.30 before the caravan had successfully negotiated the ascent.

Viewed from above, the glacier extends far to the NE, framed by two seemingly unbroken gigantic mountains. The glacier scems to form a very extensive triangle with a veritable conglomeration of summits, eminences and depressions. Here and there you see a smoothly polished surface either white or sea-green or grevish-black. Mostly, however, the ice is a dull and impure white. At a considerable distance the mountains appear almost to close in on each other. Water boiled at a temperature of $89.52^{\circ}$. The weather was lovely. The sun was as hot as in summer and the fairly high $S$ wind did not trouble us much. We left at 12.30 after recompensing the labourers for their heavy work by a suitable tip and our no less welcome supply of wood. The men receive I lan and 3 tcheraks of wheaten flour a month from the Chinese authorities and spend alternate months on the mountain and at Kuna Shahr, where they are given other employment. For this miserable pay, slightly supplemented by the pittance that stingy Sart merchants give them as a tip, they wear themselves out over this hard work and life.

Rakhimjanoff's illness had developed into high fever and he could scarcely keep his seat in the saddle. There was nothing for it, however, but to avail ourselves of the comparatively fine weather and try to reach Khan Jailik. The road winds in every possible direction in this muddle of icy pinnacles, short ridges and open crevices. The main direction, however, is NE. No sooner have you surmounted one than you encounter another, often crossing steep, slippery paths, on which the horses slip and cannot find a footing. In some places the road is intersected by a crevice, several fathoms deep, with smoothly polished sides. On primitive paths of large stones, sometimes of one stone, you ride across these


Reloading the caravan before ascending the ice stairway.
dangerous cracks. If the horses are quiet, it is all right, but if they jump, it is dangerous, for they slide and might fall in at any moment and break their legs. Rakhimjanoff's horse fell into one of these clefts, fortunately a narrow one. The six of us had great difficulty in pulling it out. However, by some hard work we managed it and luckily the horse was unhurt. Large numbers of carcases and skeletons of horses are convincing proof of the difficulty of the road. I counted over 30 during the day and Philip, who had been scared by these grinning horse's skulls at first, got so accustomed to them that he no longer wasted a glance on them. We travelled over this uneven mass of ice for several hours. It was already past 4 o'clock and still the opening in the mountains in the NE seemed hopelessly remote and the walls on either side as high and inaccessible as ever. The ascent went on incessantly. Each new icy eminence seemed higher than the last. When we had already begun to lose hope of getting away from this dangerous ground before dark, we suddenly came to a wide opening in the W mountain. On the opposite side two glaciers held their masses of ice suspended from two clefts in the side of the mountain. In the NE the cleft was visible, whence our glacier, known as Togra mus, took its source; it still seemed desperately far off. To our pleasant surprise the road turned and led into an opening in the mountains on the left. A look at my watch showed me that there were a couple of hours left before darkness fell, sufficient time, in my opinion, for the caravan to cross the glacier. I pushed on somewhat relieved, as for the last hour I had had an un-

The caravan climbing the ice stairway.

pleasant feeling of being responsible for the men who might easily freeze to death on the glacier without fuel. A wintry landscape with masses of snow spread itself before our eyes; it was enclosed between two huge, dark walls of rock, which inclined towards each other at a fairly steep slope. The road took a northerly direction and led into the masses of snow. A narrow footpath led from one slope to the other. The aneroid barometer still indicated an ascent and it was only in another half-hour that we reached the highest point of the day.

The descent begins a few minutes later. The mountains on either side, of which the one on the left is the same that rises behind the Tamga-tash sarai and is called in succession Qara tagh, Qizil tagh, and Barsakalmes tagh (at the bend), are here called Taparlik tagh. A small glacier is visible on each (Taparlik). For three-quarters of an hour the descent is very steep. From time to time the horses stumbled and sat down on the snow. The road did not curve at all, which would be difficult, for it goes along a very narrow depression with steep sides. Here the mountains are called Arghyal tagh. On either side, almost facing each other, there are two glaciers suspended high up like two enormous solidified lumps of putty. The one on the right appears to be the larger. The swift little mountain stream Togra-su has its source in its cleft and flows in another narrow and steep depression close by and parallel to the one we were following. Having accomplished the steepest part of the descent, we came to a triangular depression called after the river Togra-su and surround-

ed by three great mountain ranges, the two that, as it were, formed the frame of our pass, called Mus dawan, and a third, no smaller, that, as it were, forms the continuation of the mountain on the left. Between these two you see a large glacier, Togra-sunung mus, and from here a new water channel, partly covered by ice, leads to the Togra-su, which is also imprisoned by ice for the greater part of its length. The scenery is unusually magnificent and beautiful. Here the mountains are covered with grass, unlike those we saw S of the glacier. Wherever the faded grass projects, it gives the mountains dull, warm shades which, combined with tall dark-green firs growing along the upward slopes, relieve the whiteness of the snow in a delightful manner. The gorge, in which the Togra-su roars, is very narrow, so that the mountains with their steep slopes still seem of immense height. The gorge is very stony and rugged. When the road goes along one of the slopes, it is very narrow and cosered with ice in some places. A false step would be fatal, and as the slope is cotered with snow, it is almost unbelievable that the horses avoid making one. Lower down, at the bottom of the gorge, the snow is so deep that, if a horse takes a step off the trodden path, the snow comes up above its belly and it has great difficulty in climbing back. Earlier in the winter men and beasts are lost in the drifts, if they get off the road in the darkness. Here the mountains are called Togra-sunung tagh and retain this name until we reach a gorge Barsakalmesnung agze on the right with a huge glacier. The gorge bears this name, because the Barsakalmes tagh is supposed to be bevond it, i.e., the mountain we had on our right under the name of Davan bashi tagh during the ascent to the glacier and which is then called by the former name which means the mountain from which no whe returns. Here the Togra-su has a tributary. The mountains are now called Khan Jailiknung tagh and immediately atter crossing the stony bed of the river Barsakelmesnung agze by a very bad bridge, we caught sight of a fire twinkling at the foot of the

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mountain and a little later we reached two hovels built of logs. Darkness had fallen long since and the time was $8.30 \mathrm{p} . \mathrm{m}$. Both horses and men looked exhausted. Rakhimjanoff's pulse was 124 and he could scarcely stand.

The sarai was full of people and fires burned in every corner, tired wanderers camping round them after an exhausting day. Many were stripped to the waist and sat in the cold night, stretching out their bare arms to the fire with their furs thrown over their backs. Owing to the storms the sarai must lean over more than the tower of Pisa. The walls and roof are so thin that you might suppose the chinks had been made on purpose. No doors, windows or stoves. You build a fire wherever you choose. The whole courtyard, not only the house, was full of smoke. The soot hung in large flakes from the roof and walls. Ljo and the yigit collected everything necessary for a pälaw, rice from one man, meat from another and mutton fat from a third. The dandjan (the keeper of the sarai) undertook the role of cook and soon the fat was frizzling in the pot.

While waiting for the caravan I took a walk outside to keep warm. In the bright moonshine the narrow valley with its high, white walls and black groves going up the slopes looked fairylike. A couple of Sarts had taken out their horses nto graze" and stood watching them. This is probably the only fodder these untiring animals get, they certainly get no other green fodder than the little they find during the night or on the way over the plain. Pity is a quality the Sart is not acquainted with. He will give a bit of bread or a log of wood to a beggar, who comes to his farm, but this is, no doubt, more due to tradition than sympathy, for, if the moment is not suitable, he is capable of driving away a far more unfortunate person with threats, shouts and curses. For a pull ( 5 cop.) two Sarts are ready to cut each other's throats. They will enforce a claim against a poor peasant with the ut most harshness, and their begs, aksakals and yuzbashis and other persons invested with


The valley of the Togra-su at Khan Jailik.
some authority are much more unscrupulous in their extortions, especially from the poor and defenceless, than the Chinese officials. People are treated harshly and there is still less consideration for animals. They are fed badly and are made to work as long as there is a spark of life left in them. An acquaintance told me that he had found a Sart with a broken leg on the Terek dawan road. His horse had collapsed, and when he broke his leg, his companions had left him with a couple of loaves to die of starvation or cold. Hundreds of horses and asses are left to die of starvation on this road, when blows and abuse can no longer urge them forward. Yesterday I passed a worn-out donkey that had been abandoned on the road without a morsel of fodder scarcely half-a-mile from the sarai. To-day a man and his wife were bewailing the death of their donkey. In extenuation of the Sart's behaviour it must be admitted that he is himself used to an exceedingly hard life. When you see men, women and children making these long journeys on foot, though they are exhausting even on horseback, exposing themselves to burans, the risk of collapsing and being frozen to death or at any rate getting some part of their bodies frostbitten, you begin to think that those who do not spare themselves are almost justified in not being tenderhearted towards other people and animals. This trying journey is often made with insufficient clothing and far from enough food. A poor Sart buys 40 copecks' worth of maize flour which, roasted in a kettle, he consumes with some tea, and with such minute supplies he starts on the journey. Many perish every year. Taparlik with its narrow, deep gorge and the valley of the Tekes, where there is not a tree or a stone to indicate the way, are particularly dangerous and have buried many exhausted victims in their snowdrifts and storms. There are said to be so many horses' heads in the Taparlik gorge that in the summer they look like stones scattered on the ground. The keeper of the sarai knew of 6 people

who had been frozen to death during this winter, 10 in 1906 and 6 in 1905. A few years ago 63 people were buried by a snowstorm in the Tekes valley. They became exhausted and fell one after another. In the sarai I saw an old man with a frostbitten hand. He had just arrived. His wife and daughter had been frozen to death and were left by the old fellow close to a stone, where he covered them with a capan. The other daughter escaped with a frostbitten foot. - Better wages attract them to Ili. In Kashgar, Yarkand and Aqsu a workman earns io cop. a day, in Uch Turfan 5 cop., all with free board, in Ili in the summer 80 cop. and in the winter 32 cop. A woman carns 24 cop. a day for cleaning wool.

The caravan arrived at 12.30 in the night, having started before $7 \mathrm{a} . \mathrm{m}$. It was a pleasant surprise, especially for the Qarakeshes, to be welcomed with a hot pälaw. The bright moonlight had helped them on the march along breakneck paths and over the slippery ice of the Togra-su.

We rested to-day to give the men and beasts a well earned respite. The horses had grown much leaner, but none were galled. The shooting is very good here. There are any amount of ibexes. A flock of eight, some with beautiful horns, was grazing this this morning quite close to the sarai. I had a lazy morning and did not get up until 8 a.m. When I went out with my Mauser after a thorough wash and a cup of tea, they had gone a considerable way up the mountain. I could only see them through my glasses. The


The valley of the river Shata Musur su fom the eust.
stecp, frozen slope was very slippery, and when we got so close that we could see them with the naked cye, a snowstorm came on which forced me to turn back, but at the same time gave me a feeling of satisfaction at having covered the most exhausting part of the road yesterday. To-day it would have been impossible to cross the glacier. Three finc days in succession are rare. In the winter there are from 20 to 40 burans there, in the dutumn about 20 and in the spring from 15 to 50 , according to the statements of the labourers.

It cleared up about 4 in the afternoon. I went for a ride and again sighted a flock of ibexes, 13 in all, but unfortunately much too high up. With my glasses I was able to distinguish a venerable buck, like a pasha surrounded by his family, but there was nothing doing, the distance being too great. There are said to be bears and, from the description, lynxes and "bugha», a kind of deer. - In order to be able to light my candles at night I have put up my tent in one of the sooty rooms of the sarai. It is not exactly cosy, but at any rate it is clean.

Aprit fth. Two days' ride took us to Shata. We left Khan Jailik on the morning of the 3rd. It Shata cillage. hatd been a cold night and in the early morning I was stiff with cold, when I had to take notes on the way. But as soon as the sun rose above the mountains, the weather was lovely, so hot that I took off my fur coat. It is impossible to speak of these roads without men-

tioning the grand scenery they pass through, but the views themselses, untolding before the traveller's eycs, beggar description. The road runs along the gorge of the Togra-su, now called Shata Musur su, between the two mountain ranges that have enclosed it since Mus dawan. The mountain on the left has an uninterrupted, broad, dark-green band of tall firs; on the mountain on the right they only grow here and there, in crevices, along which they creep high up the slope in long, narrow tongues. Now and then the road in intersected by a grove of trees, crossing from one mountain to the other by a stony hillside. The grassy valley gets narrower and narrower and the ground becomes more uneven and stony as the road proceeds either along the steep slope of one of the mountains or along the bed of the rapid little river. At times we crossed small tributaries that suppl! the Togra-su with water from some deep cleft or we rode over a frozen place lower down. The ice was so slippery under the loose covering of snow that the horses slipped and could scarcely keep their feet. Sometimes we had to dismount and lead our horses that walked as if they were on roller-skates. In our big felt boots we were not much better off ourselses. The slopes we crossed were stony and fairly steep with large blocks of stone round which the road wound. Otherwise it was good on the whole. The mountains and valley, which are at first named after the sarai, take the name of Palas Qaragai half-an-hour later. For about an hour and a half the road sticks to the E bank of the river, running for some time along the slope of the mountain. The river is crossed by one of the bridges which, in spite of all their shortcomings, render good service in this country, where so infinitely little is demanded. The frontier between Ili (the province) and Kashgaria passes here. On the western bank of the river we saw the first Kalmuk yurt, outwardly quite like those of the Kirghiz, only the roof is in straight lines, not semicircular like that of the latter. The
river flows in an arm, five fathoms in width, with a swift, noisy current. The herds of the Kalmuks were grazing on the other side. I counted 29 head of cattle and about 20 horses.

For a couple of miles the road runs in the very bed of the river, and then leads slightly up the slope of the $W$ mountain, along which it goes for the rest of the day. On the left we passed a large cleft, from which two water channels lead down to the Togra-su. Approximately opposite, on the other bank, a gorge, divided into two and with a few trees growing in it, was visible with Kalmuk yurts. Both the gorge and the water channel running through it are called Aidung Bulaq. The road runs more and more to the NW. Trees and clefts grow rarer on the E bank. After riding about 10 miles we reached the Hammer dawan gorge on the left with a frozen river bed. Later, when the snow has melted to some extent, you can get through it to the Burdum Bulaq gorge and along it to the valley a little $S$ of Shatå. From this place the mountain in the $W$ takes the name of Hammer dawan tagh. The E one is called Buga tagh. As though to remind us of the name, we heard a bugan roaring in the wood close to the road. Two-thirds of a mile further on lies the sarai of Adingei, built of logs, and as poor and uninviting as the last. Just on the other side of a little depression there were two Kalmuk yurts. One of them, belonging to the Government, was prepared for me by some Kalmuks, stationed here to forward the Chinese official mails. I was received by some indescribably shabby Kalmuks, clad in leather or fur garments that were black from smoke and dirt. They wore Chinese pigtails and their clothes had a Chinese cut. A big fire was burning on the slope close to the yurts and the same group of wandering men and women, who spent yesterday with us and the night at Khan Jailik, were encamped round it. The Kalmuks belonged to the Armusumus tribe which, apparently, has its grazing grounds a couple of days' journey $E$ of Shatå.

After a cold night in the yurt, in spite of my men sharing a room with me, we started at about 7 this morning The road goes along the slope of the western mountain, some way up it. From the first it was fairly steep and the frozen paths leading up were inconceivably slippery. Wherever possible, you ride up through the drifts by the side of the road, but where there is a narrow path with steep slopes on either side, there is nothing for it but to slide down or scramble up as best you can. A mile and a half from Adingei, on a small open space in the wood, we met a Kalmuk family on the point of moving with their yurt. Some oxen were laden with the different parts of the yurt and other household goods. The men of the family drove the cattle, while the mother took charge of the smaller children. A small boy sat his horse with a still smaller member of the family in his lap and two large leather bags attached to the saddle, from which the small bleating heads of lambs protruded. The mother held an infant in her lap and led by the bridle two horses, on which a couple of urchins were perched. She wore a curious dress, with a bodice cut like a waistcoat and edged with lace, and a black skull-cap with a bunch of corals, from which a fringelike tuft depended. Opposite the open space on which the yurt stood, a wooded gorge was visible on the opposite bank with a river bed called Bugtaghnung-su. The road becomes more and more breakneck, running in a narrow path along the side of a mountain, perpendicular in some places. Now it descends at the mouth of a gorge, then again it climbs high up on the mountain side. It is so slippery that even the Kalmuk mother with
her infants had to dismount. One of their cows had dropped and no blows were of any avail. The horses kept slipping constantly and at any moment we expected them to roll down into the abyss. No sooner have you negotiated a dangerous place with a sigh of relief than you come to another, infinitely worse. At a bend, where I had dismounted to take a photograph, I heard loud shouts behind me. I just had time to jump and hang on to a rock above the road, when one of the Kalmuks' oxen, bearing the long poles of the yurt, swept past me. If any of us or the horses had been on the outer edge, this colossus, puffing like a railway engine, would have swept us into the depths.

The mountain on the left takes the name of Khaltyr Bulaq tagh; the one on the other side is called Shugat tagh. On the $W$ bank the thick fir wood seldom leaves any space for a small bald patch on the slope. - Something new, after the last few days. The eastern bank has here a border of trees along its ledge. On its slope you see a gorge that is called Shugat Bulaq. From here the road takes a distinctly westerly direction. The side of the mountain, along which we proceeded, grew steeper and the road climbed it to a respectable height, becoming more and more difficult. The opposite chain of mountains takes the name of Marts tagh at this place. The river flowed far beneath us. We could scarcely hear its roar. At some places the road is strengthened with logs. Their frozen surface is quite as slippery as the road. When you dismount, you have the greatest difficulty in keeping your feet and it is not easy to understand how the horses manage on their smooth Sart shoes. At one place the road makes three sharp bends to get from one point to another, less than a fathom off. This was the hardest part of the road to-day, even harder than any part of the whole Muzart road. The aneroid barometer indicated 581.8, a mile or two further on 596.4. At the end of the descent the gorge widens and forms a large, unwooded triangle between the two mountains referred to and a third, Marl tagh, projecting from the $W$ and going $S-N$. From the $S$ the river Dundugol su runs into the Shatå musur su from a gorge between the Hammer dawan tagh and the Marl tagh. To the N the valley opens, the mountains disappear and are replaced by the broad valley of the river Tekes, bounded on the N by a chain of mountains, the outlines of which are visible in the distance. At the boundary of this valley lies the little village of Shata at the foot of the last spur of the Marts tagh. Many Kalmuk yurts were visible close to the river. Their grazing herds could be seen in various places on the plain and hills.

Shata is in reality not a village, but a military post guarding the Russian frontier, against raids by the Kirghiz it is alleged. Sixteen wooden houses, exactly alike, extend along the village street of about 100 paces in length and at the end of the street there is a slightly bigger house. My luggage had been deposited in the latter which was occupied by the commander of the post, at present on a journey to Qulja. In one of the two small rooms there was a small sheet-iron stove. The draught from the floor, built of loose boards with no floor lining, created a hothouse temperature after a few minutes' heating. Some pages of the Daily Graphic were pasted on the walls. In Central Asia you can almost guess, who has left a printed page, a newspaper etc. behind. A couple of Russian oleographs, one depicting boyards on a bear hunt, the other the heroic repulse of an attempt to storm the walls of Port Arthur, indicated the proximity of the Russian frontier. The men
were quartered in the little wooden one-roomed houses. Both officers and men were Kalmuks. The latter were short and wore curious sugar-loaf felt caps. 'Their boots were somewhere between European and Chinese in fashion, but were of leather with a projecting sole. Their black or dark-brown dress, made of felt-like cloth, made them look rather shabby. They were armed with small Mauser carbines for i cartridge at i, ioo metres. There were supposed to be 120 of them, but just now there were not more than a dozen.

April 5th. Guided by Numgan, a celebrated old Kalmuk hunter, I rode up the Dundugol gorge Shata. this afternoon. He seemed to know the district well enough to determine exactly, at what time of day the game visited different parts of the mountain. After riding a mile or two up the steep side of the gorge I climbed after the old man, sometimes through deep snow, up a steep, breakneck slope. It was very trying for my legs, I promise you! However, our efforts were crowned with success, for from a spur of the mountain, whence the game certainly did not expect an enemy, we caught sight of a roebuck, called ilek here, with 7 branched antlers. My Mauser made short work of it and we had the pleasure of returning with the beautiful creature tied to the yigit's saddle. - This district is a veritable paradise for the sportsman and I am thinking seriously of returning from Qulja to the Tekes valley in order to start eastward across the Yulduz valley and thence to Qarashahr with the old Kalmuk as a guide. It must be lovely in the mountains later in the spring. - On my return I found that the commander of the post and his brother, a subaltern, two fine fellows of herculean physique, had returned. They seemed to think it quite natural that I had taken possession of their house in their absence. We exchanged presents. I received the traditional sheep and gave them a couple of excellent Eskilstuna knives that apparently afforded them much satisfaction. - The influence of the proximity of the Russian frontier shows itself in more and more of the Kalmuks understanding Russian. There is a Russian from Prjevalsk in the village, who trades with the Kalmuks, a couple of whom spoke Russian fluently.

April 6th. There is not much to be said about this day's journey, For scarcely ten minutes after Camp at leaving the village we had on the right the northern spur of the Marts tagh which is conGilan. tinued northward by some slight hillocks. On the last of these there is a place of sacrifice or prayer, where the Kalmuks annually sacrifice sheep. The Marts tagh continues in a NE direction. On the opposite bank of the Shatà Musur su the Marts tagh proceeds at a distance of $2 / 3$ of a mile to a mile from our road and extends slightly further south than the mountains on the right. The course of the river was slightly more $W$ than the road and we lost sight of it. Two-thirds of a mile from the village the road divides. A well trodden track leads ENE to Aghias and further east. The path we followed went NNE across the plain of the river Tekes, covered with grass and now under snow. In some places small bare patches had formed already. In these and where the snow was thin, the grass showed. The horses neighed with longing, whenever a blade of grass appeared in their path. In the summer many Kalmuks are said to live here and enliven the monotonous
plain with their yurts and cattle. - The weather was fine and the sun scorching, so that we rode without furs. Nothing relieved the monotony of the road. For a time during its latter half it follows a stream or little river. After about 14 miles we noticed a slight undulation in the ground which continued until, after 21 miles, we reached Gilan, a tumbledown hovel of a sarai, near which a yurt belonging to the Government postal station had been put up in my honour. It was clean and not very large, two good points that you appreciate on a cold night.

After a cold night in the yurt we started betimes to wade across the Tekes before the water rose owing to the snow melting. We reached the river about two miles N of Gilan at a spot, where it encircles a small strip of land. It flows in two arms here, the northern one being quite insignificant. The southern or main arm is about 20 fathoms wide and looked imposing in the cold morning with plenty of pieces of ice on its rapid surface. A group of travellers, some with asses, had built a fire and were camping round it - waiting for some passing caravan, in the hope of getting to the other bank dry-shod on the back of a horse either for payment or as a favour. There was a band of ice along the banks of the river which made the approach difficult. After tackling these bands of ice with axes we rode across to the other bank, or rather, were carried westward to the strip of land encircled by the branches of the $S$ arm and thence at an angle across the main arm of the river in a NE direction. The bottom was firm. Speed of the water 5-6 metres per second. The Qarakeshes carned a small tip by piloting a good many of the travellers across the river. Kalpin, the dog, too, had to make the crossing on a horse's back, as he showed a decided objection to the cold water. The crossing and the preparations for it had, however, occupied a couple of hours and it was past 9.30 before we could continue our journey.
'The road goes at first in a NE direction, but tends more and more to the N in the course of the day. At first it follows the left bank of the river with slight intervals, but after two miles it finally separates from it. During this time it crosses a couple of small rivers that supply water to the Tekes from the N . The ground is a plain with luxuriant grass, seeming to merge into hills and low mountains far to the N . After riding for about 7 miles we came to a chain of hills running SW - NE. For a short time the road runs along their foot. From this point the ground is slightly broken and goes in large undulations and depressions of soft outline. About two-thirds of a mile beyond, the road is intersected by four small rivers flowing next to each other, all NW-SE. The undulations in the ground become more pronounced, though there are no difficult ascents or descents. On the left we passed a hill and soon after we again crossed a small river flowing from NW to SE like the others and accompanied by a pronounced ridge on the right. Immediately afterwards we crossed another river and turned to the left from the road to reach the Kalmuk camp at Khargontu in a NNW direction, where I had been invited to stay the night in the yurt of my host at Shatå. His younger brother, the subaltern, had accompanied me the whole way, and the elder one, the chief of the post, caught us up as soon as we had crossed the Tekes.

My anxiety to see a large Kalmuk camp made me accept the invitation with pleasure.


The sarai at Gilan.

Having ridden across the fields for 4 or 5 miles, we arrived at the camp, embedded between a couple of hillocks on the southern slope of a chain of hills. Hundreds of grazing horses and cows and a few dozen camels in the vicinity of the camp testified to the wealth of my host. His very large yurt was surrounded by about a dozen smaller ones, inhabited by his people, shepherds and others. Some distance from the camp I was met by the younger brother and a little nearer by the host in person, who had dismounted and stood surrounded by some of his men. A yurt had been set aside for my kitchen and men, while I was to share the large one with my hosts. On entering I found the hostess and her two daughters standing on the right at the back of the yurt. The women wore the same laced black garment that I had seen other Kalmuk women wearing, but better than those I had seen hitherto. The girls had blouse-like garments, one green, the other black, and both wore a silver-mounted stone ornament hanging from their hair or caps on their brows. Their headgear was a slightly pointed hood covered entirely with small coral beads and decorated with the traditional plaited Chinese knob on the crown, also of corals. The woman had two thick, black, straight hanks of hair that hung down in front of her shoulders almost to the ground and ended in a couple of long, bell-shaped metal ornaments. Her skirt was edged with lace and divided both back and front, the one part slightly overlapping the other. A fat bunch of big keys, fastened so that they also almost reached the ground, jingled underneath it. The girls' straggling black hair was brushed back from their temples. The footgear of all three consisted of the same curious Kalmuk boots that seem to be very pliable in spite of their clumsy, massive appearance. Silver bracelets and many rings of the same metal on almost every finger completed this not exactly tasteful, but rich dress. On the left the decorative praying site of the household had been established, a row of images of Buddha with polished brass cups, filled with grain and water, on several ledges in front of them. On either side two ostentatious, bright Buddhist paintings with religious and very complicated and not easily intelligible subjects were put up like banners.

Crossing the Tekes.


At the foot of the altar stood a low bench covered by a rug, in front of a much lower table with all kinds of dishes. On either side of this there was a semicircle of smaller tables rather more modestly decked. After an exchange of compliments I had to take the seat of honour with my host on a carpet on the left, my interpreters and a couple of Kalmuks on the right. The women and a group of Kalmuks, who had assembled at the door, looked on standing. We were regaled with European tea made in my honour in the usual way, Kalmuk tea prepared with salt, butter and milk, served lukewarm in large copper pots with chased bands of silver, thin Kalmuk bread dripping with fat, Russian biscuits, a kind of gingerbread and lumps of sugar. When we had drunk our tea, a live sheep was brought in and the host announced with much ceremony that it was to be slaughtered in my honour. All compliments were paid standing and with much ceremony. He sent for my cook and asked him to prepare the mutton for my dinner in the way I liked best. For the household it was boiled in a large pot in the middle of the yurt and was eaten before the soup. While the meat was boiling, a Kalmuk made „lapsha» (a kind of vermicelli) of flour and water, throwing large quantities into the pot, when the meat had been taken out. - At night it was curious to go to bed while the household half undressed and lay down under fine, thick sheepskins on a high bed at the back of the yurt. Before this some fir branches were burnt in an iron bowl on a pointed foot stuck into the ground, while first the wife and then the husband said some prayers, falling to their knees time after time, in the process. - I was most comfortable in the yurt. It was a warm and calm night, the warmest, I fancy since the beginning of winter.

It has been raining since the early morning. Luckily, we had only 7 or 8 miles to cover to Kura, the principal lama monastery of the Kalmuks, for it rained harder and harder and the grey sky held out no hope of improvement. The clouds were so low that they seemed almost to touch the ground. To make mapping more difficult there was a thick fog which forced me to check the direction constantly. The road we followed was a good one. It goes in a SW-NE direction and probably connects the Kalmuks' former lamasery, Sumbe, with Kura. The ground is uneven, the mounds and hills being mostly in a $\mathrm{N}-\mathrm{S}$


Interion of the main temp/li of Kiura.
direction and forming the southermmost spurs of the mountains we noticed yesterday in the N. No steep ascents or descents. Here and there the soil in low-lying places has a tendency to be marshy: Luxuriant grass everywhere, which is much appreciated by large herds of Kalmuk cattle. About 6 or 7 miles from Khargontu our road joined the road we left yesterday from Shata to Kura.

A mile or two bevond we came to Kura, a village of yurts and wooden houses, in the midst of which stands a tall Buddhist temple. The village is inhabited exclusively by the monks and novices of the lamasery, men and boys of all ages, from 8 upwards. Shortly before reaching the village I was met by two yigits and three Chinese soldiers sent by the Taotai in Qulja. For fear of the cold further on, closer to Muzart, they had stopped in Kura and had been a burden on the monks for 16 days. One of the vigits handed me the Taotai's card and conveyed his greetings. He asked if I preferred to put up in a wooden house rather than a yurt, and when I expressed myself definitely in favour of the former, all five galloped off to the village to select a suitable house instead of a couple of yurts that the monks had already prepared for me. On my arrival a few minutes later I found the superior of the lamasery waiting for me, a little old man of sixty with a well-shaped Roman nose and a pair of tery small eyes, one of which was always weeping. A lively fire was burning in the stove of a log cottage with a clay floor. With a feeling of contentment I divested myself of my sodden clothes in the warm, though rather dark room.

The temple in Kura was built ten years ago with funds collected by the Kalmuks. It replaces their former lamasery Sumbe which was destroved, as the superior told me, 30 years ago by General Kolpakovsk:. The lamasery is considered to be fairly wealthy. Besides voluntary subscriptions it is entitled to the total possessions of childless Kalmuks, if

they die without leaving any closely related heirs. A number of rooms are said to be full of saddles and other things that the lamasery has inherited from Kalmuks, and stores without end. In the upper storey of the temple I saw a pilc of old, useless rifles that had belonged to Kalmuks, since deceased. The temple is built in the manner often seen in China. A main building with two detached smaller wings at right angles to it. Two towers at their corners. Behind the temple is a building similar to the wings. In the centre in front of it a building that serves as an entrance from an outer courtyard, also provided with a similar gateway opposite the former. Beyond this outer court there are two high poles with four-connered baskets fastened at "half-mast" to enable the visiting gods to tie up their horses. All the buildings have the Chinese tiled roofs with their gracefully curved corners and richly decorated roof-timber. At the corners of the buildings cast-iron bells are hung here and there with strips of tin attached to their tongues which produce a charming peal in the wind. The main building contains a large, square temple. A double row of red wooden pillars leads from the entrance to the altar. About a dozen images of Buddha are placed on the altar, enveloped in pieces of pink muslin, so that only part of the face is visible. Above the altar hang large coloured pictures painted in bright colours on banners of cloth. In front of it are bowls with grain and water; a flame burns under a metal shade. Metal plates, drums, trumpets of various sizes, some of them enormous, are among the objects that attract attention in front and at the sides of the altar. On the left of the

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Shell used as a wind instrument at Buddhist religion
ceremonies and by itinerant beggars.
altar at a slight distance there is a monumental armchair for the superior, covered with carpets. Between the pillars there are low wooden benches and along the wall on either side of the entrance a row of stools with carpet cushions on which lie the lamas' headgear, cloaks, staffs and other regalia of their office. The side-walls are each covered with a row of large coloured pictures. The whole thing is cold and stiff without a trace of wealth or luxury.

In the afternoon 1 wanted to pay my respects to the superior, but the old man had gone, in spite of the bad weather, to a warm spring in the neighbourhood to take a bath. I called on a couple of lamas and later on the superior. They live very simply in small wooden houses with very little light. Each has a little Buddha altar, but otherwise not much more than a carpet, a couple of low tables and a bench or two. The superior had a stove of sheet-iron. I presented him with a clock, the ticking of which seemed to amuse him. He blessed me for my long journey with a Buddha image that had, no doubt, been worn by generations of other men, as it was so badly worn. The old man allowed me to choose between one in better preservation that would give me long life and another "Berke" that would give it not only to me, but to my father, brothers and sisters, children etc. From a feeling of reverence I chose the "Berke».

Every third son in a Kalmuk family is brought up to be a lama. This is not obligatory, however. The village is full, too, of healthy boys, whose merry faces enliven the yellow lama dress and red shawl. The old man is very kind to the little fellows. When he blesses them, he playfully raps them on the head. A lama may not marry. Women are banned from Kura, where life seems to be very simple.

The Superior of the Kura lamasery and some of the boys being trained as lamas.


Before we left yesterday I was able to attend a lama service. Nonc of the senior prelates was present. Only three lamas sat along the wall near the entrance, draped in their long yellow robes and pointed capes. At certain points during the service they rose and walked with solemn steps a little way between the pillars towards the altar. A vellow headgear with a tall comb, something between a cock's comb and an ancient helmet, played some part in these »sorties». At times it was placed on the head, at others it was closed like an opera hat and was held lying against the breast. Profound obeisance, with the brow touching the floor, was only made by one, presumably the senior. About go boys sat on the benches between the pillars and in the front of each row an older man, who seemed to conduct the singing of the boys and lamas, if it can be called singing. This vocal part of the programme was carried out mostly in a subdued voice, but changed at times into a loud fortissimo, when everyone appeared to strain his lungs. I thought that in some parts the singing had some resemblance to a Greek-Orthodox service. One of the older men on the boys' flank performed some kind of manipulations with grains of corn which always produced a certain sensation. After a piece performed on two big drums, a couple of metal plates and trumpets with a beautiful clear tone, some relaxation set in and immediately afterwards I mounted my horse. At a certain point two older ministering spirits handed round rough loaves, the size of a man's fist, two to each person, and a little later they
served tea in two wooden tubs, which was poured into wooden cups that everyone produced from the folds of his clothing. The wooden bowls of the lamas were ornamented in silver. Judging by the readiness with which this refreshment was devoured, no one could have eaten anything before the service.

In the morning sunshine Kura looked considerably more attractive than I had imagined from my impression during yesterday's rain. In the S you see the $\mathrm{Ag}^{\prime}$ iias mountains. In their winter garb they seem to be quite close to the lamasery and it is hard to believe that it takes a day and a half to reach them. In the N the Khumakhei chain of mountains runs quite close, also covered with snow, at any rate at present. In the $E$ and $W$ an open plain as far as you can see.

At first the road goes ENE. In the course of the day the direction changes more and more to the north; quite threc-quarters of the way is NNE and the last mile and a third go due N . The large herds of cattle belonging to the lamas graze on the plain to the E of the lamasery. Here we crossed five small water-channels, of which only two can swell into rivers, the others being merely streams conducting water from the Khumakhei-su. Near these small river beds the soil shows a slight tendency to be boggy. After a ride of about three miles we had grassy hills on the left near the road, the foothills of the Khumakhei mountains. Where they retreat from the road, small parts of the chain of mountains are exposed at a distance of about $2 / 3$ of a mile. After another four miles the road enters undulating ground. The unevenness of the ground increased and the ascents and descents became stecper and more difficult. The southern spurs of the mountains gradually give way to the main chain which is clearly visible, though at a considerable distance, and are replaced by these undulations in the ground that are in the nature of spurs of the mountains and go in a southerly direction. Between these spurs we often crossed small water-channels winding along by the side of the Tekes. The largest of these are Bashqaragai, preceding the mountain of the same name, and after it two rivers called Tara-gudju-su. The fine sunny weather was succeeded by a cold, piercing wind and a dense fog that lay close to the ground. At times it descended, so that we could only see a short distance in front, at others it dispersed, only to return soon. The road leads by a sharp ascent to the white-capped chain of mountains, among which the typical triangular summit of Burga rises above the surrounding peaks. As the ascent becomes steeper, the beds of the rivers grow deeper and the slopes more inaccessible. Very frequently we found boggy places, though they were not large in extent. One of my Chinese soldiers got stuck in the largest, $2-300$ paces square, and his companions had to help him to get the horse out. There was grass on all the slopes. In the distance we often saw Kalmuk camps of $3-5$ yurts and here and there a herd of cattle or a trodden track indicated their proximity. To reach the height of Bashqaragai, or rather, the mountain beyond the river at its foot, we had to climb for 18 minutes at a stretch. Towards the end of the day the road turned northward into a wooded gorge, at the bottom of which a small water-channel, Bugra-su, winds. We were now in the actual chain of mountains. The road goes northward, ascending rapidly, for a mile or two. The sides of the gorge become higher and higher. At a rather more level spot on the slope of the mountain on the left stood a couple of sooty Kalmuk

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yurts and an impeccably clean one put up for me. A Kalmuk post is stationed here to forward Chinese official correspondence. An inferior local Kalmuk official had brought a present of a sheep, an attention I declined, as I had enough meat for several days. The trouble with these presents is that in most cases they are part of the extortions practised by the officials. They are taken without payment and the money you give for them certainly does not reach its intended destination.

To-day we experienced the most trying part of the whole journey. I had intended to divide the distance into two days and spend the night in a gorge, where there is wood and water, between Girin (dawan) and Sà dawan, but the assurances of the Taotai's yigit that the distance from Bugra to Kan did not exceed yesterday's march, induced me to agree to do the journey to Kan in one day.

We started shortly before 7 a.m. From the camping place the road leads up a mountain slope. The highest point, Girin dawan, is reached after 20 minutes' ride. Water boiled at $92.9^{\circ}$; the barometers indicated 584.8 and 580.4 . After a slight descent we entered a gorge, the Surga gorge between the Surga mountain on the right and the Kharkhyn ulu mountain on the left. A tributary of the Tekes, of the same name as the gorge, winds along its bottom and a bridlepath leads along it to the Kok su valley. The slope of the mountain on the right is wooded for several miles, but later the trees become rarer, only growing in gorges or climbing the summit of the mountain. In the river bed we saw a couple of natives sawing fir planks about $21 / 2$ to 3 metres long with a handsaw. On the left firs are only seen in the gorges. For almost two hours the road, constantly ascending, goes along this gorge that leads up to Så dawan. The road is often stony and then goes along the slope of the mountain, but cannot be considered very difficult. Threatening greyish-black clouds had been lowering over the mountains ahead of us and before we had reached the pass a snowstorm overtook us. Nothing was visible but the path a couple of yards ahead. Not a trace of mountain or tree on the right or left. In such conditions, not exactly favourable to mapping, we reached the Så dawan, where I made a hypsometer observation. Water boiled at $90.64^{\circ}$ and the barometers indicated $55^{\mathrm{I}} .4$ and $55^{\circ} .2$. There is a Kalmuk cemetery at the top of the pass. We met a few Kalmuks there, who made their obeisances and prayed, unperturbed by the weather.

When the descent had lasted some time, the snow turned to pouring rain with a high wind. The road follows a gorge, along which the Sánung-su winds. For the greater part the road runs along the slope of the left bank of the river which is steep at times, though it often goes over to the opposite bank for a short time. In the 10 miles that it continues along this gorge there are no very steep places worth mentioning, but on the other hand it is very stony, when the road runs along the actual bed of the river. The road separates definitely from the Sånung-su and for about a mile goes up a steep slope. From this place a descent begins that lasts close on two hours. The road is good and not at all steep. On either side the ground forms large mound-like eminences. At the foot of these long hills lies the village of Kan.

Darkness had fallen long ago and forced me to give up my mapping work. The snow-


Three lamas at the Kiura lamasery.
storm, the rain and the constant climbing up and down had tired out the men and horses, and it was with a sigh of relief that we dismounted at a large farm in the village. Immediately after me came the horse with my cases of instruments and the body of a Qarakesh man. He had probably died of exhaustion in coming down from the Sa dawan and the body had simply been left by the roadside by his companions. I found his wife, son and daughter weeping round it. They had made the journey to Ili on foot across the mountains and had found the man's body. Fortunately, I had a pack-horse and was able to bring him into the village. The family looked decent. They had spent their last penny on the long journey and were now absolutely destitute. I was glad that I could help the old woman with a few roubles.

April IIth. Kan, a village of 60 houses, is inhabited by the Tarantchi. It has the same appearance Khoghuntche as the villages in Chinese Turkestan. There is some difference, however, in the manner of village. building, though the materials are the same, viz., clay and unb」kcd bricks. From one or more fair-sized courtyards you enter a large room with a raised part of the floor or a platform on the right which occupies the whole room, only leaving a passage along the wall on the left. A couple of wooden pillars are usually put up to support the roof. In the wall on the left there are two doors leading to a couple of rooms, of which the back room is slightly higher, so that the windows under the roof look out on to the yard over the roof of the first room. The light enters the first room through an opening in the roof, as is usual with the Sarts in Chinese Turkestan. The population is of the same type and wears the
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same clothes as the Sarts with the exception of the women. They wear a coloured cloth on their heads, knotted at the back as in Uch Turfan with two points hanging loose down their backs. They do not wear any veil or covering over their faces, and although sometimes they are shy and hide from strangers, they are much less so than the Sart women. They heat their stoves with coal. When the snow is deepest, it is knee-deep. It lies for 3 or 4 months. Wheat, maize and barley are grown and yield a $5-6$ fold crop on an average. About 4 people, 4 horses, 5 cows and io sheep can be reckoned per household. There are usually 2 or 3 burans yearly, mostly from the W. Kan is on the way to Sharantchi, Så and Tchaptchal dawan.

The road we travelled was excellent and ran across a grassy plain which was only cultivated in parts. A mile or two from Kan we crossed a canal about three fathoms wide, over which a poor bridge had been thrown. We passed the village of Djargui Djargash of about 90 houses and about an hour later a couple of single farms belonging to the village of Khoghuntche. The caravan which went straight on, while I had to retrace my steps of yesterday for a couple of hours, had arrived some time before and dinner was ready. Khoghuntche is a village of about 100 houses. There are $41 / 2$ inhabitants, 3 horses, $31 / 2$ cows, $\mathrm{I} / 4$ camel and 20 sheep per household. Maize, wheat and barley yield a 10 fold crop, millet up to 12 fold. The tax is collected in the form of grain and is about $1 \mathbf{1 / 2}$ times the seed sown. About three burans annually, mostly from the W.

The character of the road was the same as yesterday. In other words it was good and April 12 went over a grassy plain with a level surface. The only obstacles encountered were canals Qulja. and water-channels and here and there a marshy patch with standing water. During high-water these channels and canals get swollen, so that they force travellers to make a wide circuit westward to a bridge between Kainak and the Sibo Manchurians' 2 sumun.

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The horses of the caravan swimming accoss the Ili.

Some way from Khoguntche we crossed an old canal or a small arm of the Ili, about threc fathoms wide and 0.35 metres deep with a firm bottom. On the right a small water-bed skirts the road and a little before the Ili a larger one, about 4 fathoms wide. The Ili river is reached opposite it at a place, where, after flowing in two arms, it flows in a single bed about 50 fathoms wide. Here it describes a curve almost like an S , the current in the river turning almost at a right angle. This peculiarity of the current and a quiet cove on the right bank are utilised by a ferry that attends to traffic between the two banks, which are flat on either side here and afford good landing places. The ferry is hauled along the bank by some horses, ropes being simply tied to their tails and their efforts being assisted by the ferrymen on foot with long hawsers. On reaching a suitable spot the horses are collected on the side on which the current passes the bows of the ferry. The ferry is then pushed out into the river. The horses which usually offer some resistance, are whipped up and off goes the ferry, tugged by a group of swimming horses and carried by the swift current. The ferry is heavily laden as a rule with people and goods and often with as many as 8 horses. For the sake of economy, however, caravans prefer to unsaddle the horses and drive them into the river in a bunch. Once they are caught by the current, they cannot help but swim across.

Of the road we covered the stretch from Avat to Tamga-tash is bare of grass or almost so. The part of the road N of the glacier often has an excellent crop of grass in the summer, from May $1 / 14$ to October $1 / 14$. On the other side of the river we passed a couple of water-channels, dry just now, and reached a steep ledge of the bank. The road leads up to this at the place where it is cut by the river, or rather, stream Dshirgalan. On the right of the Dshirgalan stands an oil mill, surrounded by a shady garden. As I discovered later, an Austrian is employed here, fate having guided him here and forced him to enter the

employ of a Sart. A broad road, well wheeled and trodden, leads westward to Qulja. the suburb of which begins about 2 miles from here. On the left the ground is flat until it drops steeply into the bed of the Ili. From the high bank of the river you have an excellent view of the whole valley to the south, its scattered villages being marked by clumps of shady trees. A line of mound-like hillocks runs on the right of the road. They are called "Dzimdin sy" which means „the silver roof or head». Rumour has it that a rich Kalmok Buddhist temple once stood here. Small Buddha images of clay are still found here and many pieces of glazed tiles in blue, green, yellow, brown and black lie scattered over a large surface. At the foot of these mounds is a shady garden, Gulehambagh, a kind of public garden, used by the inhabitants for holding "tomashas". The suburb is only 3 or 4 years old and is inhabited exclusively by Kashgarliks, who come here in large numbers annually. It is preceded by many orchards and gardens that continue between it and the actual outskirts of the town. The road is very dirty, the horses sink deep in black filth, the stench of which is mixed with the strong smell of brandy, evidently from a distillery on the outskirts. The houses on the outskirts are worse built, or at any rate far more dilapidated than in the new little suburb. The street makes a couple of bends and the shops are better stocked and begin to look more prosperous. Suddenly on the right a broad cross-street opens up with Russian signboards on the shops, a kind of fire station, a Tartar mosque and a bazaar in the form of a single-storeyed gallery-like building with shops next to each other. This unpaved street with its rows of houses and Russian signboards has a decided resemblance to a Russian provincial town. The mandarin's yigit guided me along this street and another, also with Russian signboards. I caught sight of the agency of the Nadejda Transport Company, the Singer agency, the branch of the Russo-Chinese Bank, the Post and Telegraph Office and so on.

After my three months' journey from Kashgar it was very pleasant to be once more in such a civilised and, above all, such an important place as this. We stopped before a sarai, so filthy that I hesitated about staying there. A "flat" that I was shown in a private house


Two Silo women, 30 years of age.
had unfortunately already been rented by a woman-dentist, who was expected in a few days. What a pleasure to have your teeth attended to here in Central Asia by delicate feminine hands, while a charming little face relieves the pain by means of an irresistible dentist's smile, intensified by a woman's charm. I was preparing to make my room in the sarai look cosy and home-like, with my shabby felt boots, filthy clothes, a broken compass, a cracked glass, a creaking bed etc., when an aksakal from the Russian consul arrived with a suggestion that I should put up in the house of a rich Cart horsedealer opposite the Cossack guard of the consulate. Naturally, I was delighted to accept this offer. The caravan was laden again and soon my treasures were unpacked in my new quarters, a splendid room with -- believe it or not - 5 glass windows. The owner was in Tashkent, but the house was inhabited by no less than 8 clerks who conducted the various branches of the firm's business - horses, sheep, hides, wool etc. A Sart merchant rarely specialises, but transacts business according to the market conditions in almost everything. My 8 hosts with a watchman and his two sons occupy two small rooms next to mine. At night, when they have gone to bed, you can scarcely cross the room without treading on a snoring Mohammedan. My men occupy a room beyond theirs next to the stairs.

April moth. Beyond the Cossack guard, whose barracks face my windows, stands the Russian Qulja. consulate in a large shady garden with a couple of beautiful wide avenues. It is situated in a number of small one-storeyed houses painted white, at least a dozen, very like each other, that have evidently grown like mushrooms as soon as the space got too cramped. The largest, also rather small, differs slightly from the rest by having a recumbent stone

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Chinese lion on either side of the entrance. It is occupied by the consul, Fedoroff, a man between 40 and 50 , and his wife, who have lived here for over 9 years. The other houses are occupied by the chancery, the secretary, dragoman and others. The consul's hospitable house is a great stand-by for foreigners visiting Qulja, even though he does not entertain the very numerous Russian colony as often as before owing to his having lost his only son last year. The assistance I received from him and all the kindness and hospitality both he and his charming wife extended to me will long be remembered by me with gratitude. His extensive knowledge of China and his long sojourn here, during which he has succeeded in placing himself on a good footing with the Chinese authorities, have given him an excellent position, which, unfortunately, frequently benefits Russian subjects who deserve it very little.

The secretary of the consulate, A. A. Diakoff, a keen shot and fearless horseman, is greatly interested in archaeological research and possesses theoretical training for it. Unhappily, his work in the consulate does not allow him to devote himself seriously to archaeological research. The dragoman, V. N. Labdovsky (?), arrived quite recently after serving in Peiping for some time. He made the journey there from Urga on horseback. In addition to the consul's guard of half a company of Cossacks, a special detachment of troops has been stationed at Qulja since the Boxer rising. The detachment is quartered close to the Chinese town wall in hired barracks, surrounded by an embankment that possesses all the bad, but none of the good qualities of a redoubt. This space is called the garrison and the senior officer is known as the commander of the garrison. The presence of a Russian detachment on Chinese territory is very strange and it seems scarcely likely that China, in view of her apparent present national revival, will consent much longer to such an infringement of her sovereign rights. The men seem to be well

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Entrance to the temple
Vanshukung al
Khui-yu-an-tchen.
disciplined and I was able to watch some military exercises, an experience denied me in Kashgar. The manocuvres seemed inadequate and the officers might be reproached for their deficient knowledge of the country they have such an excellent chance to study, in which cvery path, ford and mountain track should be familiar to them. A separate telegraph line connects Qulja with Russia. The postal and telegraphic connections are in the charge of an office with a couple of officials. The mails are carried and delivered once a week in a large cart escorted by 3 or 4 Cossacks.

A course in Chinese is held at the consulate for a number of Russian subjects. An officer is detailed there annually. The European element is represented in Qulja, in addition to Russian officials and merchants, by two Roman Catholic missionaries of Dutch origin, Steneman and Meerendonk, the former being at the head of all the missionary work in the whole of the Ili district and Manas. There are about 100 Chinese Catholics in the Ili district owing to the fact that this district was formerly a place of exile for Christian Chinese. The work of the mission is falling off very much. Medical work is new, but very restricted at present.

The 10 years' occupation of the Ili district by the Russians has not passed without leaving traces behind. More or less imperfect knowledge of Russian is common and even people who do not speak the language, usually greet a foreigner with a "gapab-embyu" and pull off their skull-caps with some difficulty in the European fashion. Trade relations with Russia are very lively. Houses with glass windows are common, there are Russian shops and Russian vehicles and harness. Sewing machines are common and are even scen in Kirghiz yurts. Unfortunately, the name of »Russian» is often borne here, as in other colonies and border districts, by a very discreditable element - criminals and adventurers, who have been unsuccessful elsewhere, or Tarantchis, Dungans, Tartars, Kaulasians, Sarts and Kirghiz, who have nothing in common with Russia but their citizenship and

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Khui-yu-an-tchen.

even that only as long as it is to their advantage. Just as Mr Macartney's work at Kashgar consists in a great measure in extending the powerful protection of Great Britain to a band of Hindu bloodsuckers and usurers, it is the thankless task of the Russian consul at Qulja to protect the interests of thoroughly discreditable persons in innumerable financial and criminal encounters between Chinese and Russian subjects, merely to maintain Russian prestige. The humanity of the Russian laws in comparison with the Chinese must convert this powerful protection into a crying injustice in the eyes of the local population. In serious cases, in which a man's guilt is proved according to Chinese ideas and he might. perhaps, be condemned to have a hand cut off or the sinews of his legs severed, he can be released by a Russian court for want of evidence and appear again a week or two later to resume operations in the excellent market of Qulja. A Russian subject may enlist as a soldier in a Chinese detachment and attempt the life of an officer. By Chinese law he is sentenced to be strangled, but if he is able to inform the Russian aksakal that he is a Russian subject, the Russian consul demands his extradition, and in Russia he probably receives no sentence, and so on. The mandarins are still extremely obliging and pay great consideration to the wishes of the Russian authorities. The fact that the outcome of the late unhappy war has not, as far as Russia is concerned, affected relations with the Chinese authorities is greatly due to the ability and position of the man who represents Russia's interests here. On a fleeting visit one is struck by the very distinct antagonism towards all that is Russian among the population, especially the Chinese (true Chinese, Manchurians, Sibos and Solons). Chinese officials speak of the weakness of the position in Russia and appear to be comparatively well informed of conditions there. The local people go much further and one hears talk of China's preparing to recover from Russia those districts that formerly belonged to China, that the Russians should be driven back across the Amur, that their privileged position in Western China should be abolished etc. In fact, you hear


The centre tower (Kulo tower, under which two main streets cross) at Khui-yu-an-tchen.
the same warlike opinions, to which I was treated on several occasions during my journey in Chinese Turkestan. Here it is evident, however, in contrast to Kashgaria, that Russia has many partisans among people who keep up a connection with Russia, lived there or found it easier to bear the Russian régime than the Chinese during the years of occupation. Her antagonists, however, understand more clearly than the people in the south the injustice of the privileges enjoyed by Russian subjects and criticism goes more to the root of the matter. In Kashgaria the feeling of enmity was rather unconsciously sensed than based on facts. Complaints and arguments there are often so childish that you can scarcely understand them, unless you realise the inconceivably low stage of development of the population. Towards the end of the Russian occupation of the Ili district a large number of Chinese subjects, Tarantchis and Dungans, are said to have applied for Russian citizenship. Their applications were granted, but they were warned that when the Ili district was evacuated they would not have as much land in Russia as in Ili. The fear of Chinese vengeance settled the matter, however, and only a few remained in Ili. These were made much of by the new Chinese administration and were given all the unoccupied land. The difference between the position of those who had remained in Ili, and their own, induced many of the new Russian subjects to return to Ili and settle there. The Chinese authorities winked at this and abstained from either protesting or assenting. When this example was followed by more and more, the Russian authorities began to take notice and had the fugitives forcibly brought back into Russia. This was followed by fresh flight and fresh violence by the exasperated Russian authorities. This difference in the treatment of the population was not to Russia's advantage. - When the action of the Russian authorities proved

unavailing, another method was tried. Russian subjects were permitted to settle in the Ili district, but the Russian authorities kept a sharp eye on them and made their agents levy taxes from them. They had therefore to pay at least treble taxes: to China, to her grasping officials, to Russia and finally to the agents or the Russian authorities, who extorted whatever they could by means of threats. As a natural result Russian citizenship is now something to be avoided rather than coveted. - Those who have to pay this additional tax through the consulate are said to do so regularly, while those who are pursued by the agents, often try to shake off their torturers by fleeing into the depths of the country. A Torgut-Kalmuk lama called at the Russian consulate at Qulja one day and stated his intention of visiting the Kalmuks in the neighbourhood of Astrakhan. He had let it be understood that the Torguts kept up a regular connection with these Kalmuks and that the Khan had not only assented to this, but wished it personally. He was, he said, very dissatisfied with Chinese rule and was in terror of his life on his coming journey to Peiping.

A call I paid on the acting Dzian Dziun is scarcely worth mentioning. The ceremonial April was exactly the same as in the case of the most insignificant Shenguan. The affable old Qulja. general seemed effeminate. He was said to be quite uneducated. Thanks to the kind offices of the consul I was given night quarters in the house of Fushan, a Sibo-Solon officer, who had been attached to the Dzian Dziun for various correspondence. He had lived in Vernyi, where his son was being educated. He spoke Russian fluently. His residence, Khui-yu-an-tchen, is the cleanest and most beautiful Chinese town I have seen. It was built after the Russian occupation and is well planned with straight streets, two of which that cross each other in the middle of the town, are broad and beautiful. The main street is occupied almost entirely by official residences, "yamen", with the Dzian Dziun's in the centre. Besides there are some shops and a couple of temples, one of them very beautiful, the roof being covered with glazed brown tiles. The other main street consists mostly of shops, restaurants etc. At the point where they cross, a tower had been built like those you see above the entrance gates of Chinese towns. Four doors in the shape of a cross

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Interior of the residence of the Dzian Dziun at Suitin.
allowed traffic to circulate under the tower in two directions. The town is inhabited by Manchurians, who have the sole right of living there. You meet interesting types in the town, Kalmuks, Kirghiz in picturesque costumes with their long-haired, pointed fur caps, Sibos and Solons, who are all directly subordinated to the Dzian Dziun. The town of Suitin, a dirty Chinese town of the usual type, lies $2-2 \mathrm{I} / 2$ miles from the residence of the Dzian Dziun. Beyond a fairly fine temple, said to have been built in honour of the Dzian Dziun, and another, in which the images are supposed to possess healing properties, there is not much to see. In the town there are a Djentai and a Shenguan, who speaks fairly correct Russian, though with some difficulty. He was formerly a teacher of the Chinese language in the school at the Russian consulate. There is a Roman Catholic missionary at work in Suitin and the neighbourhood. A few men of the consul's guard are stationed here for the purpose of escorting the mails.

A big village, named Turpan, lies ro-II miles NE of Qulja on a small mountain river, Dshirgalan, not far from its outflow from the mountains. i/3 of a mile beyond the village the unevenness of the ground on either side of the river confirms the opinion of the local population that human dwellings stood there in former days. Traces are visible almost everywhere of excavations made by treasure-hunters. Here, as in every part of this country, in which dwellings are supposed to have stood, there are rumours of treasure having been found. The secretary of the Russian consulate made some minor excavations here and discovered some silver and copper coins, a small vase of rough pottery, a tobacco box and other small objects. He believes a couple of the coins to be of Uigurian origin, the rest Mohammedan. One day I made about 30 workmen cut up the ground in 3 or 4 places. In one of these holes two large clay jars, standing side by side, were unearthed; they had a kind of ornamentation along the upper edge of a different form from that used by the

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people to-day. They were in such bad condition that, when I tried to dig them up after photographing them, they fell to pieces. In addition I found a few coins, some fragments of clay vessels and nothing more. In the village I bought a small vase that had been dug up at the same place and in an old woman's house I saw a large clay vessel with the same design at the top, also discovered in the ground. It was in perfect condition and was used in the house for holding water. Halfway between the village and this place there is a whole layer of earth, full of human bones, about 3 feet below the surface at a spot where an ariq had dug itself a channel about 14 feet deep. I saw parts of a skeleton in a half sitting, half standing posture. The skull was well preserved except for a hole at the top, but when I began to remove the fairly loose earth from it, the teeth fell out and the bones fell to pieces in several places, which indicated great age. The ground is damp all round here and the process of decay must be comparatively rapid.

According to later information the road from Aqsulaq to Tsangme-Dagit does not present any great difficulty. The ground is very broken, but grassy the whole way. A horseman does the journey in 2 days, with pack-horses in 3 days.

Accompanied by A. A. Diakoff I paid a visit to-day to the ruins of the former summer residence of the Kalmuk Khans, Inj din sy, as the Chinese call the place. Translated, it means (the Khans') palace or temple with the gold roof. The Tarantchis call it Sumbe, which seems to indicate a temple or monastery. Kainak lies about 15 - 20 miles $S$ of Qulja, between the river Ili and the chain of mountains that divides it from the valley of the Tekes. We crossed the Ili at the same spot as when I last came from the south, which makes the road slightly longer. The rain of the last two days had made the Ili swell considerably and many water channels that were then practically dry were now full to the brim. The current to-day was $5 / 3$ to 2 metres a second. It was no easy matter to tug the empty ferry against the current to a suitable spot with horses, to whose tails ropes had been tied.


Clay vessel discovered during excavations in the village of Turpan, so miles NE of Qulja.

Instead of 2 horses we now had 7 swimming in a bunch by the bow of the ferry and dragging it along. We were carried downstream at a furious pace, but got across safely.

The road continued in a SW direction at first over the land of the Sibo Manchurians. We rode through their 2nd summun, a scattered and badly built village, enclosed by rather a dilapidated clay wall. Neither cattle, nor even dogs were to be seen. The people looked poor and dissolute, though some were far from ill-favoured. Just $S$ of the village we crossed an enormous ariq, Tchaptchal üstang, that waters all the fields of the Sibo summuns for about 70 miles. About 7 miles further S we saw a couple of shady, attractive Tarantchi villages, the $\mathbf{E}$ one being Kainak, a prosperous village of about 250 houses. Close to the village and just $S$ of it there is a considerable mound of earth which is pointed out by the local people as the ruins of a Kalmuk building. About 2 miles further S we came upon the ruins of a square building, ESE of it the ruins of a round building and SE of the latter the remains of a wall that extended in a slight curve for a distance of almost $2 / 3$ of a mile first in a $\mathrm{W}-\mathrm{E}$ and finally in a NE direction something like this:

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Inj din sy ruins near the village
of Kainak, $S$ of Qulja.
Easternmost building of the ruins.


In the square ruin the most massive walls were about $13 / 4-2$ metres thick at the base. In some places they rose to a height of $2 \mathrm{I} / 2$ metres. They were built of bricks and masses of slightly flat bricks were lying in the middle of the courtyard. Here and there we saw pieces of glazed tiles, blue, green and yellow, of the same kind as I had seen near Qulja. Fragments of clay vessels were rare, those I saw being grooved and of comparatively fine quality. There was an outhouse beyond the S wall of the ruin. Indistinct remains of walls were visible $S$ of a slight rise in the ground that enclosed the $S$ part of the ruin, like a kind of earthwork. - The round ruin was built less carefully, the walls were of clay, about $11 / 4 \mathrm{~m}$ at the base. It was intersected by the remains of a wall, from which we noticed faint small projections. In the NW there were two small ruins. N of the ruin there was an annexe with remains of many small rooms. - The ruins of the wall run parallel, quite close to a rise in the ground which continues in a westerly direction, as though it was intended to be carried on to a town about 4 miles to the N , which it also enclosed. The W part of the wall was better preserved than the E part. Fields came up to the foot of the wall and it will certainly not be long before the remaining parts of the wall are demolished. It is built of clay, about I I/4 m at the base, and in many places has crumbled away.

We rode from the N end of the village almost due E , guided by our host. On the right, May 3rd. close to the edge of the village, a kurgan could be seen, rather smaller than the one we Qulja. visited yesterday to the south of the village. This one, too, is said by the local population to be the remains of Kalmuk dwellings. About a mile $\mathbf{E}$ of the northern end of the village we came to an embankment, about $I^{1} / 2$ metres high, encircling a round piece of ground ${ }^{1} 50-200$ metres in diameter. The place is called Kungtaidji kul and the story goes that there was a pond here once, in the waters of which under the shade of the trees the Kalmuk khans were fond of taking a cooling bath in the heat of the summer. The massive embankment, still well preserved, is undoubted evidence of there having been a water reservoir


Ba:zar street in Qulja.
here, possibly the centre of a large camp or to provide sufficient drinking water for the herds of the Kalmuks. A stream that flows, clear as crystal, close to the embankment should make it possible for the reservoir to be filled again at any time. Close to the S part of the embankment there is a clump of trees and a couple of houses have been put up in their shade. A neat little Mohammedan temple has been built at the foot of the largest tree, using it as a centre. The simple little mud huts look quite pleasant in the spring sunshine, surrounded as they are with rich verdure. Half-way to Kungtaidji kul we crossed a slight ridge in a $N-S$ direction, said to be the continuation of the $E$ point of the ruined wall I investigated yesterday.

We went on southward across the fields and soon reached a place, where the ground undulates slightly. It is 2 or 3 miles NE ( $220^{\circ}$ ) of the village of Kainak. It seems impossible to find any sequence between these small mounds and waves. A couple of depressions cut across them allow the rainwater to run off. In many places the characteristic traces of former habitation that I have seen so often in Chinese Turkestan are visible on the surface - bits of clay vessels, bones etc. Here and there you notice traces of excavations made at a slight depth and always accompanied by exposed tiles of the same thin, flat shape as those I saw yesterday and at Dzin din sy. A. A. Diakoff came upon a corridor of tiles at a depth of about I I/2 metres in one of his excavations, but unfortunately gave up excavating for some unknown reason. The pieces of clay vessels that I saw were rougher than at the ruins $S$ of Kainak. This circumstance and the indistinct traces of dwellings make it seem probable that these remains are of considerably older date than those S of the village. The bones I saw here were in about as bad a condition as the bones and skulls dug up near the village of Turpan. - I was able to buy a clay pot that was discovered by some seeker after hidden treasure.

We struck yesterday's road a little S of the second Sibo summun. The water in the Ili,

contrary to our expectations, had not fallen - rather the reverse. It took over three hours for the ferry to cross to our side and fully half-an-hour more for us to cross the river. On one occasion the heavily laden ferry was already in midstream, when for some reason it cast loose from some of the horses that were towing it. The rest could not manage the heavy ferry and had also to be let go. We were carried along with shouts and yells at a good pace and I began to think that we should be carried down to the Russian frontier. Luckily, the river makes a bend here. The ferry ran aground and after some hard work, immersed in the water up to their chests, the ferrymen succeeded in getting it afloat again and hauling it to the bank. We gave them a good tip, but they got little from the other passengers for their exertions. After a ride of a quarter of an hour we reached the suburb of Qulja which extends along the road at the foot of the Dzin din sy hills, preceded on the right by the Gulshan bagh garden with its beautiful old trees. In the afternoon sunshine everything looked lovely. The fruit-trees in the gardens were completely drowned in a sea of bright flowers of many colours. In the fields and on the slopes a final struggle was proceeding between the young lush grass and last year's dry stubble. A thick and even brush of verdure could be seen shooting up in the numerous strips of garden. In the smiling landscape, the beauty of which was enhanced by the snowclad mountains in the distance, you scarcely noticed the dirt of the road, through which the horses waded to a depth of 30 or 40 cm .

On my return I was met by an old Chinese, whom I had sent for from Suitin in the
hope that his son of 16 might prove a suitable substitute for Ljo , whose caprices were beginning to disturb me. The boy seemed bright and apparently spoke Russian well. Thanks largely to the persuasiveness of Father v. d. Meerendonk we came to terms and I now hope that I have a new interpreter. The reason for this change is my apprehension of being left in the lurch some day in the interior of China, where there is no possibility of finding an interpreter. The risk must be far less with this youth than with Ljo. The news was a great surprise to Ljo, who had evidently thought that a Cossack might be changed, but not the interpreter.

May 5th. Yesterday was one of the busiest days I have had for a long time. I had to make a conKan village. tract with the father of my new interpreter, have the signatures witnessed, deposit six months' wages with the missionaries as a guarantee, pay off $L j o$ and Rakhimjanoff and write a reference for the former, write some letters, pay a final call on the consul, despatch my caravan and get started myself. Although I hurried as much as possible, I could not leave the town before 3 p.m. Fortunately, I had not to do more than about $2 / 3$ of a mile on the other side of the river. My new interpreter had gone home beyond Suitin to prepare for the journey. It was agreed that he should come to Qulja to-day at 12 and reach the village of Kan by the evening. I am afraid, however, that he will not be in time and that I may have to wait here another day. In view of this the journeys on the first two days are to be short.

I wandered about the plain to-day with my gun. I shot a kind of partridge, a duck and a falcon. The partridges are so shy that it is difficult to get within range of them. I saw a fine bustard, but it was too far off for my shotgun. There was a high wind and the clouds were very low on the slopes of the mountains and hid their white summits. There is something mysterious and attractive about these mountain colossi that carry their heads high among the clouds. They seem to form a gigantic stairway through higher spheres into another world.

May 7th. My fears were justified regarding Tchao or Joseph, my new interpreter. Instead of arriving the day before yesterday in the evening, he came yesterday afternoon, which was not to be wondered at. I devoted the morning yesterday to roaming the plain with my gun. I only brought back a hare and a duck, it is true, but saw quite a lot of game at a distance. My small bag, as well as yesterday's, was despatched to the wife of the consul at Qulja with my best wishes for Russian Easter. I had fortunately avoided it by leaving on Easter Eve.

To-day at last we left the anything but hospitable village of Kan. Though showing me all the respect possible in my capacity of »miman», the villagers did their best to bleed me, demanding shameful prices for fodder, meat and so on. From Kan the road goes eastward at the foot of the most projecting spurs of the mountains to the village of Tchaptchal. Here there is a sharp turn southward and we crossed the mound-shaped spurs of the mountains that are separated from the principal chain, as on the Så dawan - Kan road, by a good-sized valley. An insignificant river bed, Tchaptchal su, winds along it, the south-
ernmost single farms of the village of the same name being embedded on the western bank among grass-covered hills. It is a smiling landscape in shades of luscious green, charmingly broken by fir-clad fells with snow-coloured pinnacles far in the background. From here the road leads through a narrow valley southward towards the principal chain. The slopes are not steep, the ground is soft and the road so good that it can be used at any time by wheeled traffic. My new Cossack was unused to these large, high loads. We had constantly to stop and readjust the load of one or other of the horses. We had to ride for about $5 \mathrm{I} / 2$ hours before we reached the foot of the Tash dawan. For about half-a-mile the ascent was steep and particularly stony. We halted for the night a mile to a mile and a half $S$ of the pass. The tents were put up quickly to protect the baggage, as rain had begun to fall. The horses threw themselves greedily on the luscious grass on the slope. Just below it runs a swift little stream. Wood can be obtained slightly higher up. A Kaza Mongolian turned up with a sheep I had ordered across his saddle and we had brought everything else with us.

The rain continued all night and this morning, when we were to start. On the urgent advice of my Qarakesh not to attempt the pass on such wet roads, I decided to wait for

May 8th. Campat better weather. At 9 it stopped raining, but as the soup was already boiling, I could not start before it had been eaten. By the time all was ready and we had started, it was 12.30 . The slope leading to the Tchaptchal pass began at our camping place. The road is not particularly steep, but often very stony and in places slippery after the rain. At $3.30 \mathrm{p} . \mathrm{m}$. we reached the last of a succession of hills. As the loads got unshifted several times, 2 I/2 to $23 / 4$ hours should be allowed for negotiating the pass. The long ascent had tired the horses which were very wet. The barometers indicated $546.3,546.8$, water boiled at $91.1^{\circ}$. At the top of the pass two stone cairns with ribbons etc. indicated the proximity of Kalmuk praying places. The southern slope of the pass is less steep and trying than the northern slope. Here the road could almost be used by wheeled traffic in its present state. After a descent of about an hour the road debouches into the gorge of the Surga su, where it joins the road over Sad dawan. The Surga su was swollen by the rain and was about a fathom wide to-day with a swift current, but not at all deep. At the spot, where the road branches off from the Surga su and begins to ascend three successive passes, of which Girin dawan is the highest, it was very slippery to-day, which increased the difficulty of the ascent and descent for the pack-horses, but there was no reason for postponing the journey on account of a couple of days' rain.

A couple of caravans and a group of travellers from Kashgar to Ili were encamped before us near the two sooty Kalmuk tents at Bugra. There was not much room on the small slope, but concord makes room on these roads and we soon had a large bivouac in two yurts, a tent and three good fires.

The route to-day was familiar. The ground had now lost its mantle of snow entirely May gth and even in the deepest depressions this year's grass is beginning to appear, though in The lam contrast to the open plains it still looks whitish-yellow at a distance. Folds and undulations at Kura.


The Tchaptchal pass.
in the ground were clearer owing to a whole scale of different shades of colour in green and yellow that seemed to form shadows and reflections. The conviction I had formed previously that this stretch of road would not present any great difficulty to heavy wheeled traffic was strengthened during the day's journey. There is room on the steepest slopes, if necessary, to make the road zigzag less sharply, and on a couple of slopes, where the ground is stoniest, it should not present serious obstacles to traffic on wheels.

The rivers Bashqaragai and Taragudja su had become considerably swollen, but are of no great depth. The banks of 3 or 4 of the small rivers that cross the road are marshy, but traversable, and besides it is possible to camp almost anywhere. The grazing is excellent and there is plenty of water, but no fuel as soon as you leave the river and watermills behind you. The sunshine of the morning was succeeded by a piercingly cold wind in the afternoon and light rain, so that we were thoroughly chilled by the time we reached the lamasery at Kura at 4.30 . The Khunkhei rivers (. 2 or 3 ) near the lamasery were also rapid and noisy after the rain of the last few days.

The superior of the monastery was absent. He had ridden to the Kok-su valley to try to heal his running eye at a hot spring. I was received by three other lamas, who had prepared the same house for me as before. The traditional sheep was provided, rather leaner than last time, and I was left to obtain fodder as best I could. Fortunately, there were a Chinese and a Sart in the village, who supplied passing caravans with the most necessary stores at high prices.

May roth. My photographs of the superior and the oldest lamas achieved great success. They
Kura. were passed round from hand to hand, producing much merriment among the inhabitants of the monastery, of whom 99 per cent had certainly never seen a photograph before. Thanks to this good impression I got them to allow me to photograph a service. The modest lamas interrupted it and stood still, in full canonicals, while I counted 60 , the boys

being told to pretend to beat the drums and blow the copper trumpets with silver ornaments, the largest of which are $11 / 2$ fathoms long and are supported on a bench.

To avoid over-exerting the three horses I had bought in Qulja and above all to repair a couple of packing cases that had been dropped yesterday, I decided to rest here for a day.

The superior of the lamasery returned later in the evening from his trip to the hot spring in the Kok-su valley. He had spent in days in this original hydro in the wilds with his yurt and had taken as many baths. The water is said to be so hot that you can only enter the spring gradually as your skin becomes accustomed to the high temperature. I thought the old man looked exhausted and that both his eyes were watery now, but he seemed convinced that he would soon be better, which is not surprising, seeing that he had been advised in Lhassa itself to bathe in a hot spring. I presented him with a magnifying glass which apparently gave him even more pleasure than the watch on my former visit. When I told him that I could not wear the Berke image, as the glass would not keep in the frame, the old man offered me another little burkhan in a brass frame, which also looked as if it had been worn for generations. Its name in Tangut is "Sebukmet», while the Kalmuks call it "Utunasta Ajusju". Its wearer is safe from bullets and can expect long life. In the evening my Kalmuk friends Nasumbatoff and his brother Djirgill arrived, both of them, and especially the former, rather drunk. Although I was anxious not to waste any time, I accepted their invitation to visit their camp to-morrow in the hope of being able to buy another pair of horses.

The buran-like storm yesterday turned into a snowstorm towards evening. During the May Itti night the temperature fell to $-4^{\circ} \mathrm{R}$. and when I got up this morning, the monastery was Campat surrounded by a snowy, wintry landscape. On the horizon the heavy clouds were so low Khargoni that they completely hid the foot of the mountains and the latter seemed to raise their


> Interior of the Kura
> lamasery with lamas officiating.

white pinnacles out of a sca of clouds. For the first time I was able at $35^{\circ}$ from Kura to distinguish the pyramid or sugar-loaf shaped head of Khan Tengri dominating the surrounding mountains. The group of mountains that encircles Togra mus and Mus dawan also appears impressive in height, towering above the adjacent mountains. It is $360^{\circ}$ or due $S$ of Kura. The snow ceased towards morning and it had turned fine The air was still rather cold, however, and a cold east wind accompanied us during our three hours: ride to Khargontu.

Nasumbatoff's big yurt was much simpler than last time, no bright banners and his wife much dirtier. A kind of brandy made of milk played an important part in the entertainment. It was served lukewarm. Nasumbatoff and a couple of guests indulged freely in the drink and emptied one silver tumbler after another. Our mutual gifts acquired serious dimensions on this occasion. He presented me with a large horse, lymphatic in my opinion, and I gave him a new Berdan rifle and a few boxes of cartridges which represent the approximate valuc of a horse in these parts. The traditional sheep was recompensed by mirrors, knives and sweets for his wife and children.

Drunkenness seems to be general among the Kalmuks. Besides Nasumbatoff and his brother I noticed two other drunken men in his small camp.

It does not appear to be the law among the Kalmuks that the third son of each family should become a lama, but it is a general rule that, when there are two or more sons, one of them is brought up in the monastery. A lama is held in great respect among these godfearing people and it is much increased, if he makes the long and difficult pilgrimage to Lhassa. Among about 5000 yurts of the Surgan summun there are about 500 lamas. The boys, who are brought up in the lamasery, wait on the lamas and are taught during their leisure hours. Those, who show any aptitude for it devote themselves entirely to

a religious life, the others being given all kinds of work and household jobs. The former are called "geling", the latter "geshiln. The wealth collected in the lamasery is considerable In addition to liberal voluntary contributions the lamasery enjoys a right of inheritance, whenever a Kalmuk dies. This is said to amount to the gigantic proportion of 50 per cent, though a compromise is sometimes effected in the case of poor people dying. All that has been received by the monastery is divided annually between all the lamas according to their grade. When a lama dies, half his property goes to his relatives, the other half to Lhassa. Among the Kalmuks wives are not bought, as among the Kirghiz, among whom their price often amounts to several hundred horses. Women possess the same rights of inheritance as men, whereas among the Kirghiz a woman is incapable of inheriting anything. The widow's share among the Kalmuks is equal to that of each of the children.

The dead are notburied; after the lamas have prayed over the body for three days: it is left lying on the plain for the dogs to devour. No exception is made for the rich

The Surgan summun, consisting of about 5000 yurts, is divided into five districts, each of which has its own judge. Their remuneration consists of voluntary gifts that seem to be liberal, for wealth accumulates in their yurts. The sentences are, however, confirmed in most cases by Ukhereda (Nasumbatoff's father). Nasumbatoff's district consists of 600 yurts, 100 of which are considered to be rich.

During the day I visited Nasumbatoff's "tabun» (stud) that contains about 1500 horses. May 12 In the glorious sunshine that succeeded the snowstorm and cold of the night and early Campat morning, this fine herd of horses grazing on the green, gently rolling plain, was a wonderful sight. For a couple of hours I rode about among the mares and foals that assembled in groups round the stallions. There are $4-500$ mares and they looked so beautiful that they would certainly be a welcome addition to almost any stud. They are deep-chested and

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Nusumbatoff's wife, sons and daughters.
strong with well-shaped necks, the head perhaps rather heavy, though not devoid of distinction. The tail is well placed, the loins and small of the back well developed, sinews irreproachable. They might have slightly larger knees and bellies. It was a real pleasure to see such plentiful and harmonious material. I liked the stallions less, though some of them were large and powerful. Finer and larger ones should be chosen, for the average height of the horses is not more than about $56^{\prime \prime}$. The proportion of pregnancy is said to be about $7^{2}$ per cent. The horses are usually not sold until they are 5 or 6 years old and fetch prices varying from 20 to 70 roubles. About 150 horses are sold yearly and some are given away to poor Kalmuks. The pasturage seems to be excellent in the whole of the Tekes valley and the quantity of last year's grass shows that the number of cattle is not in excess of the local resources.

From Khargontu to Tekes the ground is boggy in places. At the point, where the road last branched off from the Gilan-Kura road, there is a very boggy place and further on, where the road is intersected by small tributaries of the Tekes, the horses sank in to a considerable depth. The water in the Tekes was rather lower than it was last time. Not far from the river, Numgan was waiting for me; he had dismounted and in his crouching attitude looked like a wild animal ready to pounce on its prey. We encamped near the Gilan sarai, where 6 or 7 Kalmuk soldiers from Shatå were awaiting Nasumbatoff. He had promised to assemble his whole sotnia at Gilan, and the modest number of shabbily dressed Kalmuks who had turned up, showed that it takes some time to collect the sotnia which is scattered in its yurts. Some of the horsemen had the support made of two wooden pegs fastened to their army rifles - Mauser carbines for i cartridge - that is usual here among the hill tribes.

My yigit, a Kalmuk of the
Surgan summun, mounted.


It was a cold night, but luckily there was no snow. In the evening a splendid log fire was built, round which the Kalmuks and my men ate a huge pallaw. The sarai, which is falling to pieces, provided some of the fuel and goodness only knows when someone will have the bright idea of repairing this hovel which is the traveller's only protection from

May $3^{\text {th }}$
Kirghiz campat Kharosun winter storms and snow in a plain of $35-40$ miles in width. I treated Nasumbatoff and his brother to a bottle of cognac purchased in Qulja. The Kalmuks, whose appetites are amazing, asked after the pälaw, if they might boil their usual soup and I generously gave them the half of a sheep with which I had been presented. The geese and ducks that several of us including Numgan, had failed to hit, could be heard until late at night in a marsh close to the camp. It was a lovely evening and I sat up long after my usual time for retiring, chatting with my numerous Kalmuk companions.

We had a ride of only eight miles to a Kirghiz camp, the yurts of which are nearest to the Aghias gorge. These Kirghiz spend the winter in the gorge and migrate for the summer to the valley of the Tekes, the grazing grounds of which, E of the Musur su gorge, belong to them and to Kirghiz, who spend the winter further east in the mountains. My host, who is the judge among a population of 100 yurts, had put up a very well furnished kibitka for me. A huge dark-brown eagle, trained to hunt, had been placed at the entrance as a sentinel in my honour. My host said that he hunted wolves with this eagle. Tea was served from a large, nickel-plated samovar in his own kibitka, which was amply furnished with boxes with metal fittings and embroidered covers. On the way there we passed a couple of dozen Kirghiz yurts. Here they are called Khaza by the Chinese and Khazak by the rest of the population. The people are surprisingly clean and well dressed. The women wear coloured cotton dresses, often decorated with ribbons sewn on to the skirt, and over them black bodices of slightly shiny cotton cloth cut in the shape of a sleeveless coat. The traditional Mohammedan sash is knotted round the black bodice and over


An eagle trained for hunting,
placed as a guard of honour outside my yurt in the Kïghiz camp on May Igth.
it all they wear a black, unbuttoned coat with short sleeves. On their heads they wear a large white cloth, knotted rather elegantly and looser than the Kirghiz women in Russian and Chinese Turkestan. The dress of the men is very reminiscent of that of the Russian Kirghiz. The stock of cattle, especially sheep, seems to be large. My host told me that there were at least 6000 horses in his district. As, however, he owns 2000 himself and his brother owns as many, I expect he underestimated the other 98 yurts, the outward appearance of which rather indicated that they were prosperous.

May 14th. At my host's suggestion I left most of my things in his keeping and started on my Camp at the shooting expedition to the Aghias gorge, carrying only the most indispensable equipment. outlet of the Repacking my six cases in the midst of a crowd of inquisitive Kalmuks and Kirghiz was river Aghias. a horrible job. "The most indispensable things" could have been packed on to four horses or possibly even three, but as it was said to be a breakneck road, I divided the loads among six pack-horses to make them lighter. I myself had only two cases and my equipment for the night (a sleeping bag, blankets, a felt cape and my fur coat), but two tents, the kitchen, meal, potatoes and other supplies, the men's things, pails, teapots etc. easily increased the proportions of our luggage. As it was said to be very cold in the gorge, we were obliged to take plenty of warm clothing.

I said goodbye to the Kalmuks, all of whom promised to be in the Kirghiz camp when I returned in a couple of weeks. Nasumbatoff assured me that he had again tried to collect his sotnia, but had not been able to get hold of more than two more Kalmuks. On my return, however, he would meet me with the whole sotnia and a horse that he had presented to his gods, "burkhans", but which he intended to take back and give me instead of the one that I had got and was not very pleased with. His brother Djirgili also made me a present of a horse, but, when I told him through my interpreter that I had no spare rifle to give him, he said no more about it and I was quite content to drop the subject.

Kirghiz women al work.


Being short of cartridges and films I despatched a Kirghiz, recommended by Nasumbatoff, to Qarashahr to fetch some from my cases. Armed with a letter from Nasumbatoff's father, he and a Kalmuk are to make the journey there and back in 12 days, changing horses two or three times a day at the expense of the local inhabitants. I have only to give them money for their food, which they will probably not have to spend, and a present. - Besides Numgan I have taken another Kalmuk into my service. He speaks Russian poorly, but Nasumbatoff has promised to replace him on my return by another, who knows the language better. I require an interpreter principally for my journey through the Yulduz valley, but apart from that it is too much for two men to manage the eleven horses and five sheep that we are taking with us. The cook has enough to do with his kitchen and my sleeping kit, and Numgan will be busy chiefly in tracking game. In populated districts there are always some inquisitive locals who can be employed on various jobs, so that you can do with fewer men there.

We moved about twelve miles to the SE to-day to a spring close to where the river Aghias comes out of the mountains. The road is excellent over the grassy plain. We encamped just below a fir wood on a beautiful slope with a lovely view northward across the Tekes valley and the Khunakhei mountains in the distance.

A little below our camp there was a block of stone on the left bank of the river, about 1 m 30 cm in height and 20 cm in breadth and depth. A human face with a distinct mouth, nose, eyes, cheeks and chin was carved in the SE side. Below the face you could trace some unevenness in the stone which might easily have been an inscription, but was very indistinct. The light was bad and I am afraid that my photographs will not come out. At this time of year the stone should be photographed early in the morning or at $\mathrm{I}-\mathbf{1 . 3 0} \mathrm{p} . \mathrm{m}$.

Late at night a noisy little stream broke through the ice at the bottom of the gorge, May 151 next to which we had encamped. The snow that melts during the day up on the fells, Campat only forces its way to the Tekes valley towards evening, and there is much more water in Kelsu-su. the mountain streams in the evening and at night than in the morning and during the day.


Tuo Kirghiz women of quality in front of a stand, on which wood is dried.

The Kirghiz seemed to think that, owing to the quantity of snow in the mountains, the river Aghias would be far more swollen this year than usual and that my return journey in a couple of weeks would be a difficult matter.

About $2 / 3$ of a mile $\mathbf{E}$ of our camp we descended into the valley of the Aghias. The descent was the steepest I had experienced. To attempt it on horseback was out of the question. I felt rather uneasy about the pack-horses that were tied together in couples by their tails, but all went well except for one load falling off and having to be repacked. With the exception of this truly breakneck hill the road was not at all difficult to-day in spite of its often winding along the ledge of the perpendicular bank of the Aghias, several fathoms in height. You get so used to these roads non the edge of a precipicen that you allow your horse to pick its way on a loose bridle and give yourself up to thoughts of other things.

The main direction of the river valley is $\mathrm{S}-\mathrm{N}$. It is about $\mathrm{I} / 3$ of a mile wide and is enclosed by beautiful mountains, partly wooded, mostly very steep and in some places almost perpendicular. The soil, consisting of a mixture of stones and rough gravel, is cut by a winding bed, several fathoms deep, at the bottom of which the Aghias roars with a very strong current. To the south the valley seems to be shut in by lofty, snowclad mountains. Small, smooth, grassy slopes alternate with very stony places, where the road, or rather, our path, leads between large blocks of stone that have tumbled down from the mountains.

On the right the mountains part to leave space for the foaming water of the Baying gol that intersects our path. At the far end of the gorge stands a huge, white-clad mountain. A little further south the Aghias is fed from the E from the Täuntang bulaq gorge. After riding 15 or 16 miles we reached the foot of the tall, snow-capped mountains. Here the valley divides. The one that continues southward is called Hungur buluk and a roaring

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river of the same name, about 14 feet wide, flows along its bottom. The considerably larger Aghias makes a sharp bend here. Our road which runs along it against the stream, took us eastward over the river Hungur bulaq. Numgan's horse stumbled on the stony bottom of the river and the old fellow and his leather breeches which, to judge by their appearance and filth, had certainly served at least three generations, got a ducking in the cold water. He was so stubborn as to remount at the spot where the accident occurred, and succeeded, though he had to stay in the water much longer than if he had taken a few steps to the bank. It must have been the first time he had come into contact with water since last summer at the very least.

A mile or two further on we camped in the bed of the river next to some enclosures made by Kirghiz to protect their herds in the winter. A large image of Buddha, various ornaments and Kalmuk inscriptions are carved on a fairly smooth wall of rock about a dozen yards from the enclosure. Underneath the apparently rather recent carving there are signs of carving of undoubted great age. As they are faint and coincide with the new ones in some places, it is impossible to reproduce them without the new ones. However, by comparing an impression with a photograph, on which only the new signs should be visible, it might be possible to reproduce at any rate some of the old ones. It is conceivable that the Kalmuks were simply trying to restore the old inscription. It is curious that for some dozens of years the gorge has been inhabited solely by Kirghiz-Khazaks.

In the afternoon the water began to flow down from the heights by every little cleft


Numgan riding across the river Aghias.
and hollow. The river is swollen and roars along with a noise that carries my thoughts back to the mighty rapids of my own country. It is a joy to listen late at night to this voice, familiar to us northerners, that makes a grand impression in this wild gorge.

May ${ }_{\text {I }}$ 6th. It took from 6 or $6.30 \mathrm{a} . \mathrm{m}$. to about $2 \mathrm{p} . \mathrm{m}$. to take an impression of the stone. I got
Campat an impression of some of the old signs, but others were so faint that they only produced
Shartek. an indistinct roughness on the stamp. Unfortunately, I was unable to superintend the washing of the rock personally and as a result some of the sheets of paper became very dirty. I could not bring myself, however, to sacrifice any more of my small stock of paper for a fresh impression. The paper had not dried completely, when the wind, rising to a severe storm later, forced me to take it down. It was rather late for crossing the Ketsu-su, but I was determined to move my camp and find better pasturage for the horses. But just as we were about to start, Hassain and Numgan returned with the news that it was impossible to ford the river to-day. Hassain had attempted it, but had only got halfway across, when he had to turn back, as his horse was swept aside by the rushing water and almost knocked down. We zigzagged up the very steep ledge of the bank and half a mile up the slope towards the mountain, where we encamped close to a stream about 260 metres higher than yesterday. It is characteristic of the ideas of the local population that the place is called Shartek, which means nthe level ground». It is so level that, if you lie down on your side, you roll downhill.

May 17th. We reached the Ketsu-su slightly $\mathbf{E}$ of our camp after some very steep descents. Here it Campat flows $\mathrm{S}-\mathrm{N}$ and is about 21 feet wide, the bottom being covered with large stones and Khaptkhau-su. the current very strong. We crossed without incident. On the right bank of the river we

passed a large block of stone, on the surface of which, facing E, roughly drawn pictures of mountain goats were carved, undoubtedly of very ancient origin. Here again the light was bad. Some of the roughness of the stone was in shadow, while other parts were in the sunlight.

During our further journey eastward along the high bank of the river Aghias we passed, not far from the river in the middle of a small plain, a stone scarcely 1 metre in height, very roughly carved in the shape of the head and upper part of a human body. Some roughness was visible on the chest with a line round it in the form of a frame. On the way back I will have water brought in order to wash the stone thoroughly and see what can be done. In five or six hours over ground that was often stony and uneven, our road debouched into the valley of the Khaptkhau-su, a tributary of the Aghias from the S. We encamped barely $1 / 3$ of a mile from the Aghias, which still flows $E$ - W here, in a little meadow with luscious grass close to the rushing little river. A buran that had been hanging over the mountains for some time broke and we had to hurry more than usual in putting up our tents.

The buran spent itself towards evening and the rain ceased. We arranged with Numgan May r8th. that we would go out shooting for the first time to-day at 4 a.m. on the mountain, at the Campat foot of which we had encamped. After three hours' stiff climbing we reached the summit, but found no game except a brace of "ugar", a kind of mountain capercailzie, that rose in terror. The descent was not much easier, though it went more quickly. It is a marvel to me that my legs, broken three times, carry me up and down these horribly steep slopes, but they do, and if I get back from this shooting trip with a whole skin, my patched-up knee will have had some good training. In coming down we solaced ourselves with cups
of hot tea and were, of course, treated to a long story from the other Kalmuk as to how he had seen a flock of about 50 ntekän, ibexes, walking slowly from our mountain to the next while we were doing our ut most to reach the top. As if to scoff at us still more, a flock of ${ }_{17}$ ibexes, of which I counted 12 with large horns, was seen walking high up on the slope on the opposite bank of the river. We were just about to saddle our horses and ride there, when a fresh buran-like storm with showers of rain forced us to give up the idea. A buran on the mountain tops has no definite direction, but blows from practically all sides, so that you cannot approach the animals, whose scent is finely developed.

My supply of rusks is diminishing at a disturbing pace. Today I found the cook boiling soup with the sack of rusks, weighing fully 72 lbs , slung across his back. With a sly smile he explained that this was the only way of preventing the men from shoving their noses too far into the sack. I had it put into my tent, but this amusing incident induced me to send a pack-horse to Qulja for another 5 poods of rusks. By the time we return to the Kirghiz camp, where I left some things, it should have arrived.

May 19th. You must have first-class bones and muscles to stalk ibexes in the mountains. My knee Camp at that has been patched up twice, was not equal to the strain to which I put it. In the after-Khaptkhau-siu noon I felt a pain in both knees and towards evening they were swollen, probably owing to a slight bleeding in the knee-joint. Much as I had tried to spare my bad knee, the effort had been too great, and my sound knee which had had to do more than half the work, had also not stood the test. I put woollen bandages on them for the night and this morning at 4 I tried again to go out shooting. But this time I could not get along and had to turn back, bitterly disappointed. Numgan and Lukanin went on without me, but were not much more successful, for they returned after wounding an animal with three shots, in spite of which it escaped. A few hours later I rode to another mountain with Lukanin, hoping it would be easier to climb. We saw three flocks of ibexes there, 50 head in all. But here, too, I had to give up climbing. Lukanin, to whom I gave my Mauser, was also unable on this occasion to approach sufficiently close to the shy animals. He fired two shots at long range, but apparently they did not hit anything.

May 2oth. Old Numgan carried on the chase for 13 hours and returned in a very bad humour, Camp at having fired a few shots without any result. Today we left our delightful camping place
Onu-su. near the junction of the Khaptkhau-su with the Aghias and moved about ten miles further east to a place, where, according to Numgan, it is possible to ascend the slopes on horseback. It was a cold, raw day with a strong northeast wind and heavy squalls. I rode up a small hill with my yigit slightly in advance of the others, when to my amazement I cannoned into a huge wolf on the summit, coming at a good pace from the east with the wind behind it. My horse and the wolf very nearly collided. It scarcely took a moment for me to dismount and seize the rifle that was slung across my back, but the wolf, which was as much surprised as I, was already disappearing at full speed round a spur of the mountain on the left. We encamped by a small mountain river, Onu-su, which also carries water to the Aghias from the south. Some distance off we saw about 40 ibexes high up
on a mountain, and halfway up the mountain opposite our camp a flock of over 60 was visible. The storm is howling and threatens to blow down our tents and will probably prevent the old man from going shooting today. I have searched in vain for the gentle slopes, up which it is supposed to be possible to ride, and am afraid that $I$ shall be forced to abstain from shooting here.

Today we had another tiring and fruitless day. We rode off at $6 \mathrm{a} . \mathrm{m}$. and made a carefut reconnaissance of the mountains on both banks of the Aghias for ten miles east of our camp. Although Numgan studied every nook and cranny in the mountains and I examined them through my glasses, we failed to see a single ibex. I regretted this all the more, as the mountains east of the Onu-su are not so steep as those we have seen hitherto and a good part of their lower slopes can be traversed on horseback. On getting back we had a hurried meal. Izmail gave us a pleasant surprise and treated us for the first time to shashlik, a wedcome change from the soup we had had daily for weeks, if not months. Having changed horses, we set off for the mountain opposite the camp on the other side of the river. With my glasses I could see yesterday's flock of ibexes grazing about halfway up the mountain. We rode as far up the slope as possible and then left the horses at a heap of stones and began to climb. After an hour and a half's stiff work we reached a crest, whence a good shot could be obtained at the place where the animals had been seen grazing. Not one of them was to be seen. In a heavy hailstorm, brought on by a fresh storm, we reached another crest after a breakneck climb. The aneroid indicated a height of 3570 metres. From this point the glasses showed us the goats going slowly higher up the almost perpendicular wall of rock towards the top of the mountain. It was impossible to take aim at them and further pursuit was useless.

When we reached the river on our way back, the water had risen very much. It foamed and roared like a cataract. Numgan's horse tottered and was almost bowled over, which would have meant almost certain death for the old fellow and his mount. Only by guiding the horse almost straight against the current and crossing the river at an acute angle was it possible to keep the horse on its feet and get across with your legs immersed in the water up to your knees. Luckily it was not far to the camp, where we changed our clothes and warmed ourselves with hot tea. During our absence Kalpin, who had disappeared three days ago, had returned to everybody's joy. Our joy was not longlived, however, for no sooner had he been fed than he disappeared again. The only explanation I can think of is that he has been seized by a passion for hunting and probably feeds on the rodents, of whom there are thousands on the mountain slopes.

To-day we went shooting in the mountains along the left bank of the Onu-su. I had come to a desperate decision to shoot a "tekä» today at all costs. Fortune seemed to favour us at first, for on the slopes on either side of the river we saw small flocks of 4 or 5 ibexes. Onu-su. We decided to surprise a small herd grazing in a cleft that seemed to be comparatively accessible. While we climbed the mountain, however, a storm arose again. The curious thing about these storms in the mountains is that they have no definite direction, but keep
shifting about. The animals' fine scent had again warned them and saved them from certain death, I venture to believe. When we reached our goal, the birds had flown. --- After a short consultation we decided to continue the ascent of the mountain on our right, from which the wind was blowing. This time our hopes were fulfilled. We found four »kiyiks» grazing in a hollow. As I reached the top of the last crest with bated breath and pounding heart, I saw by the outsiretched neck of the ram that he had noticed something suspicious. There was no time to lose and I fired, fairly certain of having taken correct aim. My disappointment was great, however, when in a couple of bounds all four animals disappeared beyond the next crest. Lukanin tried in vain to stop them with a shot. We followed them for some time, but soon gave up hope of finding them again, though some traces of blood showed that I had hit the goat. The aneroid indicated about 4100 metres above sea level. For a couple of days, however, my smaller aneroid does not seem to have been functioning correctly, so that a slight error is very possible.

On Numgan's advice we descended into a deep gorge and proceeded up a stcep slope again. From the top we caught sight of 16 ibexes grazing, one of them with the largest horns I had seen so far. The distance was 5 - 600 metres, but as the direction of the wind would not allow us to approach any nearer, I took aim with my arm well supported, lying full length, and fired without much hope of making a hit. The view from our crest was indescribably beautiful over the nearest mountains with their gorges and valleys. The splendid flock of goats retired with some dignity, at first at a gallop and a trot, stopping frequently 10 see who had dared to encroach on their inaccessible grazing grounds. They moved at a slow pace to a crest enveloped in snow, beyond which they disappeared after forming a fine group on the summit of the mountain for a few seconds. On two other stecp slopes two flocks that we had not noticed began to climb the mountain, frightened by our shots, and from a third crest the graceful silhouettes of two or three kiyiks could be seen standing calmly in their inaccessible stronghold and watching the valley and the fleeing goats. The grand mountains look still more beautiful now than when I rode over Muzart a month ago; they wear their spring garb, the whiteness of the snow varying with different shades of green, yellowish-brown, grey and endless other colours. The melting snow runs into innumerable rivers and streams. The surface of the water glitters on all hands in the sunshine and the roar of its violent flow rises to the summits of the mountains. This district may well be called a paradise, not only for sportsmen, but for all who love beautiful and grand scenery and enjoy the exertion entailed by an outdoor life. Lowering clouds forced us to give up our wanderings.

During our descent we caught sight of 16 vultures circling round the peak of the mountain on which I had taken a shot at the kiyik. This strengthened my conviction that my shot had been fatal. There was nothing for it but to climb up again. About $2 / 3$ of a mile from the spot where he had been wounded, we found a splendid ten-year-old, shot in the right side of the breast from the front. The calibre of my Mauser may be too small, even with a half-mantled bullet. If the animal is not hit in the heart, brain or spine, it does not drop at once and it is no easy task to follow it up over such ground.

On the way back my horse stumbled in a marshy part of a narrow path that leads
along a steep slope in a gorge. Off we went, head-foremost down towards the stony bottom of the gorge and I felt that I would have nothing to add to this diary. The horse made some vain efforts to break its fall, but my weight evidently hampered it. Luckily, I was able to seize a thick branch of a tree and hang on to it. The branch gave way, but so slowly that I was able to gain a foothold on the slope. My horse, once he was relieved of my weight, also succeeded in arresting his career and pulling up against a rise in the slope.

Yesterday was entirely wasted. We had decided to go shooting by ourselves in the morning and to surprise Numgan by producing an excellent mekäs, when he returned. The old fellow had set out on the previous evening to prove that it was not so difficult to get at the goats as I imagined. However, the whole morning and a good part of the afternoon were spent in an unexpected chase - in catching our horses which had been allowed, by my orders, to graze without being tethered. When we had at last caught eight of the twelve, by 2 o'clock, such a storm broke loose as I had not seen before. It was so severe that 1 expected our tents to be torn to shreds at any moment, although they were put up at the bottom of a gorge and stood at right angles to the direction of the wind. The thermometer dropped from $+14.6^{\circ}$ to $-0.3^{\circ} \mathrm{R}$. and a severe hailstorm gave way to a heavy snowstorm. All shooting was out of the question. We had even to give up our attempts to catch the other four horses. At about 5 p.m. Numgan returned after shooting "tekäs" for 25 hours. Evidently his pride was hurt that instead of a mountain goat he had only bagged a *kiyik* and a much smaller one than mine.

We had decided to try our luck for the last time this morning, but the storm was still so severe, though it had stopped snowing, that we had to abandon our scheme. I resolved instead to start back without further delay. A wintry landscape surrounded us this morning. The snow was quite an inch deep and a strong north wind made the change of scenery seem all the more natural. Halfway to our next camp, Khaptkhau-su, we caught sight of a flock of splendid goats high up on a mountain across the river. The caravan was told to go on to our camping place, while Numgan and I rode across the river with the intention of climbing the mountain. The goats, however, were already on the move and before we reached the foot of the mountain they had got to such an inaccessible place that Numgan pronounced it hopeless to follow them.

On coming to the camp the old fellow asked for permission to go out once more by himself. I had no wish to oppose him, but decided at the same time to go off in another direction. It would really have annoyed me if he had been able to brag about getting an ibex to comfort me for my vain efforts. I took the road up the Khaptkhau-su gorge which we had not yet tried. After a ride of about an hour my yigit and I discovered a small herd of goats grazing fairly low on a slope. We hid our horses and were able to creep along a spur of rock screened by a thin line of firs running out from the mountain to a place where the animals were between us and the wind. We were only separated by a projecting bit of rock. When we had climbed so high up the slope that I thought we must be slightly above them, I began to advance as cautiously as possible round the projecting spur of rock, at first in an upright position, then on all fours and finally flat on my stomach, which was
anything but easy on the steep slope. My nerves grew more and more strained the further I advanced and the more I saw of the hollow in which they were grazing. But none of the animals came in sight. I was beginning to despair, when my gaze wandered accidentally slightly higher up the slope and I caught sight of the whole flock a couple of hundred yards above me, watching all my curious movements with the closest attention. It was the work of a moment for me to turn towards them and readjust my sights, but the goats had already started up the slope. When they made a bricf halt to look round, I fired and had the indescribable pleasure of seeing a fine fellow check his speed after a few bounds, totter and fall into a cleft, where we lost no time in taking charge of him. He was a splendid ten-year-old, whose breast and lungs had been pierced by the bullet. When we got back it turned out that both my shots had hit him. The other had penetrated the jaws into his skull. We had a good deal of trouble in getting the fellow into camp on our two horses. Now, thank goodncss, old Numgan cannot put me out of countenance, however many he shoots, for I have shot my first ibex by myself.

May 25th. This morning we left the bank of the Khaptkhau-su. While the caravan was loading Campat and moving off to Ketsu-su, where we were to encamp, I rode with Numgan to a gorge Ketsu-su. for a last outing. Very soon we came across a mkiyik» family of four. Unfortunately, they noticed us at the same moment and though we crept along and made all kinds of détours, we never seemed able to get within range. We were on the point of giving up hope, when they appeared suddenly on the other side of a cleft, on the edge of which we were standing. Keeping an eyc on us from time to time, they climbed up the perpendicular side of the mountain at a distance of $3-400$ metres. I fired no less than five shots without the slightest result. The graceful animals were a lovely sight, as they leapt from spur to spur in short bounds. When they had got an appreciable distance from us and I had ceased firing like a machine-gun, they stopped with their heads craning forward and seemed to watch our next step with keen interest. After a long and difficult climb we surprised in goats grazing in a hollow on the slope at a distance of about 200 metres. This time I studied the situation carefully before firing. My first shot hit a splendid fellow with enormous horns and I saw him tumble down the slope towards the bottom of the gorge, while the others hastily put a greater distance between themselves and us at a gallop. I fired two more shots and wounded another fine beast which, however, disappeared limping with the rest beyond the top of the mountain. Numgan also fired a couple of shots, but without making a hit. While this bombardment was proceeding, a "kiyik» family appeared on a spur of rock about $40-50$ metres half behind us, frightened by the shots and ready for whatever might befall. Naturally, they immediately took another direction along the wall of rock. I was so placed on the steep incline that I could not fire in that direction. Numgan fired a couple of shots without making any impression. It may be imagined, how effective these two fleeing groups looked galloping on either side of the wild and apparently bottomless gorge with its perpendicular sides, their small hoofs clattering on the rocks like castanets.

Old Numgan looked more than usually disgusted, and when I attempted to explain that I had killed the largest, he shook his head in doubt. To convince him I told him to look
down into the cleft, which he did, but merely said syoq* (no) laconically. 1 approached the edge anxiously and could scarcely believe my eyes: there was no goat to be seen. I could sec clearly that Numgan's expression meant: "So you are one of those, whose shots are all hits, even though the game is unharmedn, and he pointed out signs that a goat had limped away after one of my shots. While the old man went up to the crest of the mountain to see if the wounded goat had fallen, I looked in my annoyance for a way of descending to the cleft in order to find a solution of the puzzle. I thought that I would obtain a better view of the gorge lower down, where at any rate one of the wounded animals must be lying, and I began to move cautiously along the side of the mountain which was almost perpendicular at that place. Soon I found myself standing with both feet on a small spur of rock, unable to advance any further. I studied the wall of rock carefully, but there was nothing for it but to turn back. This was casier said than done, however, for, having succeeded with incredible difficulty in turning round on the spur, I could not make out which way I had come. I shouted loudly, but got no reply. I must have been there for quite half-an-hour, when I heard a faint shout on the left from the other side of the mountain. I realised that Numgan must have found my ibex and fired two shots in reply. After a long, long time I caught sight of Numgan's bearded countenance round the edge of the rock. He soon reached me and I climbed back in his tracks. During his descent on the other side of the cleft, in a slight hollow, he stumbled on to the goat I had shot, a 23 -year-old with my bullet through its heart; the other one lay not far off. It was a pleasant surprise, when Numgan led me up to thet wo fallen ibexes, and by our joint exertions we cut off the heads, for the ground was far too rough to drag the heavy carcases home.

I rode past our charming camping place with some regret, as I shall probably not see the place again. Lying among the lush, green grass by the bank of the rushing river and surrounded by glorious mountains, it was the most beautiful camping ground I had seen.

It is wonderful how surely the natives move at a dizzy height along slopes on which there seems to be no foothold. Their soft leather shoes are certainly preferable to our stiff soles, cren when they are provided with large spikes. My yigit fastens two horses' hoofs, upside down, next to each other under his feet and in these he runs about without ever slipping, while I move with difficulty with my clamps. On horseback, too, they are very daring. In places, where you have to overcome some nervousness in riding, the natives will set off at a trot or a gallop.

In five hours we reached the spot where the river Aghias flows out of the mountains and to-morrow I bid farewell for ever to this wonderfully beautiful gorge with its luxuriant pasturage, fir woods, grand mountains and excellent hunting grounds. Besides kiyiks and tekäs there are plenty of deer (maral) here, the horns of which are used as medicine and fetch as much as 200 roubles a pair, and a smaller kind of deer, nilak. The nullary (ugar), a kind of capercailzie, is constantly heard muttering up in the mountains, but there is no time to take any notice of him, when you are after game of a higher class. On the slopes of the stony riverbeds you often come across $n k e k l i k s »$, a kind of mountain partridge. Now and then you find the tracks of wolves and we saw one the other day. The wolves are
not very large here, though this does not prevent their coping with a tekä goat of the size of an average calf or a horse. Eagles and vultures are plentiful, and there are a few foxes and lynxes. Flowers are rare, at any rate at this time of year, but those I saw were beautiful. A kind of orchid-like blue flower with white stripes grows here, two bluish flowers reminiscent of violets, one of them the size of a one-copeck coin, the other paler with four doublepetalled leaves and the size of a Finnish penni coin. I also noticed a white variety of our lily of the valley and a yellow flower. Wild onion grows on the mountain slopes at an altitude of 3800 metres and even higher and the natives eat it with avidity. On the heights you find large quantities of a thistle-like plant, about 70 cm in height, the thorns of which penetrate your clothing. The stalk is stiff and so strong that it often does not break when you tread on it. In general the plants here are very thorny. When you return from shooting in the mountains, you spend some time in getting rid of prickles and thorns that have got under your skin.

The roads, if you can call the paths you follow by such a name, are very stony and stcep, and so difficult in places that heavy loads could not be carried. The gravest obstacle is presented by the rivers with their swift currents that swell daily in the afternoon and towards night to such an extent that it is dangerous to cross them. They cut off all communication for about a month.

At our camping place the Aghias was 80 - 100 feet wide at 7 p.m., the water coming up to the saddle of an average-sized horse. Current 2 m per second. At $7 \mathrm{a} . \mathrm{m}$. the current was the same. The water seemed to be slightly lower, however.

Numgan, who had again begged for permission to go out shooting at night, advised me to be careful at this camping place. According to his statement, Russian Kirghiz make this district unsafe. They are famous for being the greatest horse-thieves of the Ili district and cause the population a great deal of trouble and frequently occasion heavy losses. The highway from Qulja to the Russian frontier is also considered so unsafe that practically all traffic ceases after dark. It is a regrettable fact that the disturbers of the peace are to a great extent Russian subjects.

In the twilight we saw a small fire glimmering on the edge of a wood on one of the mountain slopes. A yigit, whom I sent there, came back with the news that, when he hailed them, four men left the fire and ran into the wood. As I had sent the two Kalmuks home, there were four of us, all armed with guns, it is true, but only Lukanin and I could handle a gun. I divided the night into watches and each of the men in turn was to watch the horses with a loaded rifle over his shoulder. The cook, who was to take the first watch, buckled on Lukanin's sabre besides the gun and from time to time I got a glimpse of him, strutting about among the horses with drawn sword, obviously delighted with his warlike activity.

May 28th. The night passed quietly and we started early. During the steep ride, or rather walk, Kirghiz for it had to be done on foot, from the valley of the Aghias Lukanin's horse slipped and Campat rolled down without either trying to or succeeding in finding a foothold before it reached Qarasu. the bottom. I have never seen a horse roll like that. It bent its legs under it and rolled

like a ball over the stones on the slope. Luckily it fell at the beginning of the ascent, so that the drop was only a few dozen fathoms. Strange to say, it got off with a few wounds and a completely broken saddle. To-day I sent Lukanin to Qulja to buy a new saddle and fetch rusks and other supplies, for which I had long been thinking of sending. He is to meet me in the gorge of the river Dshirgalan, which should not be more than three days' journey from Qulja along the Ili.

The Kirghiz again received me very well. I have an excellent yurt which seems wonderfully comfortable after Aghias. Fresh milk and some tinned food bought in Qulja are a very pleasant change from the diet of the last few days. My host, the Kirghiz judge, has gone to Qulja, but his wife and some other Kirghiz do all they can for me. In addition to a pack-horse that my host gave me on my last visit, I have exchanged a stallion that was of no use to me for a pack-horse that looks strong and capable. The readiness with which my brown stallion was accepted, shows the lack of discrimination in choosing horses for stud purposes. It is a pity that the excellent supply of mares and luxuriant grazing grounds are not used to better purpose.

Both yesterday and to-day I have been taking anthropological measurements all day, yesterday 19 Kirghiz or Khazaks, as they are called here, and to-day 19 Kalmuks from the Surgan summun. In order to obtain rather more complete results among the Kalmuks in particular, whom I will not see any more, I have decided to stay here to-morrow.

May 2gth. Kirghiz camp at
Qarasu.
Nasumbatoff, whom I had informed of my arrival as agreed, arrived this morning escorted by about twenty Kalmuk soldiers. At a distance they looked well, with their three large red flags with Chinese inscriptions in white. At close quarters they make anything but a military impression. The men are of all ages. Their horses are very small and ill fed, but unspoilt owing to their training, and form good material judged by local con-


The arrival of Nasumbatuff and his troops at my camp.
ditions. The saddle is Chinese, rather heavy, but good. The stirrups are mostly Kirghiz. The equipment is stuffed into two large pockets, "Khojuni», that are thrown over the back of the saddle. Their dress is the Kalmuks' usual shabby garb; the only thing that distinguishes the soldier, besides his weapons, is the apron-like garment with Chinese charaters sewn on to it and a coloured band along the edge. 'They are armed with small Mauser carbines with i cartridge. Some of them are equipped with a wooden support for hunting. The guns are neglected and in bad condition. Cartridges are carried in one or two small leather pockets on a leather strap round their waists. Nasumbatoff showed me some drill on foot and on horseback with long, light lances. They are similar to those I have seen among the Chinese troops. The lances are thrust alternately with one hand, the other acting as a support, while the man, by loudly ejaculating "shan, apparently puts more energy into his thrust. On horseback the same fencing action is carried out at a gallop. No shooting could be done for want of cartridges, but I saw a couple of soldiers practising sighting in a very clumsy manner.

Alter dinner, in the course of which Nasumbatoff and his comrades in arms emptied the contents of two leather bottles they had brought with them, the Kalmuks performed some dances and music. The dance consists mainly of very clumsy movements of the shoulders and arms before and behind the upper part of the body, which remains more or less immovable. It is difficult for them to do any dancing steps in their enormous boots and they move very little with small steps. It is really only a slight turning movement on the same spot. Their string instruments, the Kirghiz ndumbran, are played without a trace of talent. A Kirghiz got quite a good melody out of the same primitive instrument, played with some feeling, while the excellent Kalmuks contented themselves with a few simple chords. Their singing consisted of a single melody sung in chorus by 6 or 7 men of varying

musical gifts. It began without their forcing their voices, but the notes of the monotonous melody kept rising higher and higher and the last part was sung in a piercing falsetto. In the evening there was again a musical entertainment which consisted once more of the only tune.

These anthropological measurements are anything but appetising. The cleanliness of the Kirghiz leaves a good deal to be desired, but he seems almost aristocratic in comparison with the Kalmuk, whose filth exceeds the wildest dreams of the imagination. It really looks as if they did not wash any part of their bodies from birth except possibly their faces and perhaps their hands, and as if the colour of their skins grew darker and darker in the course of time under these layers of dirt until it acquired the hue of an old meerschaum pipe.

To-day I continued my anthropological measurements. I reached the respectable figure of 34 Kalmuks from the Surgan summun. No one, except the rich, raised any objection to my demand that they should wash before they were measured, It was not exactly a lovely sight to behold about a dozen of these half-naked, ill-developed individuals decorating the bank of the little river that flows past our camp. They found it comical to have to wash off one of the accumulated layers of dirt and as a matter of fact their ablutions were useless, for, to be of any use at all, they should have been performed with soap, hot water and a scrubbing brush. A couple of them - one a youth of twenty - owned large herds of horses, and they obviously wanted to have nothing to do with the cold water. They were waited on by the other Kalmuks, who pulled off their boots and spread a rug on the spot they were to stand on barefoot. Otherwise there seems to be a patriarchal equality among them and outward forms play a comparatively small part.

In the afternoon one of Nasumbatoff's officers and most of the men left my camp and returned to Shatá, where an inspecting officer, who is sent annually from Khui-yu-an-tchen, is expected shortly. The 1500 yurts of the Surgan summun are divided into five judicial districts. In time of peace each district has to provide 24 mounted soldiers between the ages


A Kalmuk dance.
of 17 and 30. The men are accepted or refused by a Chinese colonel. At the head of this squadron of i20 men is Nasumbatoff with subalterns (zalyng), 4 senior N.C.O's and 12 junior N.C.O's under him. The pay is 25 roubles for the commander, 12 for a subaltern, 7 for a senior N.G.O (dygan) and 3 r .50 c . for each of the rest of the men monthly, all calculated in "jermak». - Ukhereda receives 30 roubles a month and Nasumbatoff in his capacity of judge 20 roubles. -- At the age of 40 the soldiers are discharged.

The men seem to spend most of their time at home in their yurts and are only called up, when required. A month is devoted every year to intensive drill. Shooting practice is done with old muzzle-loaders. There is only a very limited number of cartridges for the neglected Mausers and not all the men have a dozen of them in their badly worn leather cartridge pouches. According to Nasumbatoff, every soldier should fire about rooo rounds. None of the men reported more than 300 and some even less. It seems probable, however, that the shooting practice is even far less intensive. - Except during the special month firing is only done with blank cartridges. Some of the powder and bullets supplied by the Government appeared to be used for shooting game and for other purposes. The company is inspected annually by an officer from Khui-yu-an-tchen. - In case of war all the Kalmuks are supposed to be liable to report for service, mounted. The sole breadwinner of a family, however, appears to be exempted as a rule. - Excepting among former soldiers, who are discharged at the age of 40 , there is no military training, There are no cadres of reserves and it is, or is said to be, unknown, where N.C.O's and officers are to come from. There are said to be supplics of arms at Khui-yu-an-tchen.

Two Kirghiz musicians.


This morning I parted from my kind Kirghiz hosts, or rather from my hostess, after May 3 Ist. giving them samples of practically all the presents that I have among my baggage, from Campat clocks to cheap brooches, mirrors, needles and thread etc. I would willingly have the outlet of given them something better to show my gratitude for the good pack-horse they have the Aghias. forced me to accept. Unfortunately I had no spare rifle and affected not to understand the fairly broad hints they gave me.

Nasumbatoff, who had ridden over to an adjacent Kalmuk aul last night, sent an officer to say that he would catch me up a little later. On the quiet, however, I learnt that he had had such a drinking bout during the night that he was incapable of riding. I saw no more of him and my delicate compliment in starting on his burkhun horse was wasted.

We rode part of the way with a rich Russian Kirghiz, Turla Khodja, and his companions. They had spent a day with my hosts, whose three-year-old daughter is to marry the three-year-old son of the Russian Kirghiz some day. These marriage contracts for children, who are still in their cradles, which are observed and fulfilled when they grow up, are curious. Turla Khodja has to pay the Zangi 300 horses as a »kalym» for his daughter. This is equivalent to $6-9000$ roubles. The kalym is not paid at once, but gradually as the son grows up. The girl's marriage portion is to consist of io camels, 30 carpets, 30 furs and various other things in similar quantities. If the father is rich, he usually allows his daughter part of his property. The 30 furs, 30 dresses etc. with which the daughter is equipped, are divided among the relatives of both families, so that each of them can wear a new fur or a new dress in honour of the young couple.

I halted at noon and refreshed myself with a cup of tea at one of the local officials' of the Kirghiz, the "elder" of 100 yurts. The old man had called on me the day before and invited me. He met me a short distance from his yurt with about a dozen Kirghiz, and when I left, I was escorted by the same group of horsemen. In such cases no sort of order is observed. Everyone rides where he likes and the guest of honour may easily be left to ride


Kalmuks bathing before
being anthropologically
measured.
alone at the tail of a cavalcade that raises clouds of dust. It is only in mounting or dismounting that any attention is paid to him. One or two men hold his horse, while a third helps him to mount, often with such energy that he very nearly falls off on the other side.

The lowest local authorities of the Kirghiz are the bash for 10 yurts, illik bash for 50 , "kundö» and zangi (judge) for 100 and the makalaktche" and his assistant for rooo. The akalaktche's district apparently often fails to reach the figure of iooo, as prescribed. The cause lies in the greed of the officials. In order to secure a better income, i.e., bribes, they agree to divide a district. The akalaktche alone is paid by the Government at the rate of 60 roubles a year. From the districts which they administer they collect 2, 15, 20, 60, 80 and too sheep annually. The pay seems to be higher than among the Kalmuks, probably owing to their being liable to military service, whereas the Kirghiz are entirely released from it. A feeble effort was made by one of the recent Dzian Dziuns to impose this burden on them by forming a Kirghiz company of a couple of dozen men to keep order in a district. But the company was soon disbanded. The Kirghiz pay a tax to the Government which is apportioned by the local authorities among the yurts according to the property they hold. As a rule it amounts to 1 per cent of their capital; according to another informant to 5 per cent. I was assured here that in Russia heavier taxes were imposed on the Kirghiz.

The prosperity among the Kirghiz is striking. They are tidy, well dressed, not badly mounted, their yurts are in good condition and their cattle and horses mostly very finc. In contrast to the Kalmuks, whose wealth consists almost entirely of cattle, the Kirghiz often sell sheep and horses and collect ready money in the boxes that line the walls of their yurts. The expression of a Kirghiz face is often rather sly. You find good heads among them that would certainly attract attention among Europeans, not only for their prominent cheekbones and frequently slanting and narrow eyes, but for their fine features that testify to their ancient race. There is something incomparably coarser, but often humbler in the expressions of the Kalmuks.

Old Kalmuk, Surgan summun.


The road led across a firm plain covered with grass and sometimes undulating. On the left flows the Qarasu, on both banks of which there are dozens of Kirghiz yurts, either singly or in groups of 3 or 4 . Most of them are decorated with a design in red at the point, where the roof and the wall join. We reached the Tekes at a spot where a fairly large marshy place had formed on its southern bank. In its small bogs with standing water many wild geese and ducks were gathered. The Pekes flows in an arm about $20-25$ fathoms wide. The water is yellowish-brown and rolls with a loud roar in small, foaming waves to the NE. The right bank, which we followed, is the higher and forms a line of small eminences that run along the river at a distance of about $\mathrm{I} / 6$ of a mile. In some places the bed of the river spreads out and forms small lakes with islets and capes. On the opposite bank, not far from the river, we saw Nasumbatoff's and his father's Ukhereda's, rich Kalmuk camps with enormous herds of horses. Beyond them the plain rises northward and changes into grassy slopes that extend up the mighty Khunakhei chain of mountains. Further east I recognised the mountains that divide Kura from the bed of the Pekes. The Khunakhei gorge is clearly visible, marking the position of Kura, and further off rises the beautiful triangular peak of Bugra, behind which runs the road over Tchaptchal and Sad dawn. How different these smiling plains and grassy slopes with their many yurts and grazing herds are from the mournful, snow-covered country, enclosed in grey, wild mountain ranges, that I rode across in April.

For a time the road follows, the right bank of the Tekes, but then leaves it and again takes us into rolling country. In front of us there is an appreciable, steep rise in the ground at some distance which cuts across our road. Its foot is edged with a band of leaf-trees, through which the Aghias flows towards the Tekes. Opposite its mouth, on the other bank of the Tekes, are the very appreciable mountains of Atty tau, the most projecting spurs of which reach the river. At a good distance the roar of the river announced that the
water was high. As on all the previous days for some weeks, threatening grey clouds collected round the mountains in the afternoon and spread further and further until heavy squalls accompanied by rain overtook us. It was already past 5 p.m., ie., an hour, when the water in the Aghias must be fairly high and rising every hour. The akalaktche's assistant, whose yurt was in the vicinity, came to meet me with a group of horsemen. I dismounted and exchanged a few words with the polite Kirghiz, a thin, middle-aged man with fine, expressive features. Anxious not to lose any time, I declined his invitation to spend the night in his yurt. Our tents were dimly seen among the trees on the opposite bank of the river. The foaming river looked threatening. The roaring water was higher than the banks. If you stooped, you could not see the opposite bank. There was no time to be lost. Tchao and I took off our trousers and boots. Some Kirghiz came with us to pilot us across - for the road makes a sharp bend in the very bed of the river. Eight of us rode abreast quite close to each other, keeping our horses' heads against the current. The animals seemed to appreciate the danger and walked warily on the rounded stones. The rushing water came halfway up our saddles. After wading for six minutes we got across without accident. The tents were up and the baggage had been carried over by camels which the Kirghiz had placed at our disposal. Our camping place was delightful in a young wood between the roaring river and a steep piece of ground, 6o-70 feet in height. In the S and N the narrow valley was enclosed by large mountains, but we had little opportunity for admining the scenery, for the storm was upon us and the rain drove us into our tents.

June inst. Today I considered that I had done my duty by Nasumbatoff and his burkhuns, and

Camp at Tsaganete. cloth from its mane, the sign of a horse that has been dedicated to the burkhuns and that none but the owner may ride, according to tradition.

The road led us up the ledge of the bank $E$ of the Aghias and down to the bank of the Tekes. For a time it ran along the latter, affording an extensive and fine view of the river with its wooded banks and small islands. Here the Tekes is shut in between a high piece of ground along the southern bank and mountains that are steep in places on the northern. It flows in an arm that seems to widen considerably both in the W and E , once it is released from the vice formed by the heights. The ledge of the $S$ bank recedes slightly, leaving room for a meadow that we crossed, but soon after it runs in the form of a wedge down to the river which it forces to make a sharp bend to the north and presses against the mountain on the opposite bank. We crossed another small meadow and a long projecting spur of the high ledge of the bank. It then recedes considerably, encircling from the S a stretch of meadow land $14-15$ miles in length that is called Hossagash. The mountains on the $N$ bank also seem to recede gradually from the river, leaving room for a flat strip of land. To the north the plain is bounded by a belt of deciduous trees, beyond which you hear the roar of the Tekes. To the $S$ of our road many small Kirghiz camps were visible at the foot of the ledge and herds of cattle grazing on the luxuriant meadow. At the end of the meadow we crossed the Mointai sur, a swift mountain river of some importance, though considerably smaller than the Aghias. The ledge of the bank $E$ of it is stony and very steep. In an
instant three packs with their beehive saddles had slid down, dragging two of the horses after them. The „burkhun" was in such a precarious position that straps and ropes, though of inestimable value on such journeys, had to be cut away at once. To make him rise we had to roll him over on his back on the other side of the opening of the saddle. Unfortunately, however, he slipped in rising and fell down the almost perpendicular ledge. It was a miracle that he was not killed, and it was only the quantities of bushes growing on the slope that saved him. He was badly scratched by the sand and prickly bushes, but was not seriously hurt.

On the top of the slope there is a large Kirghiz mazar with many tombstones made of boulders of larger size than I have seen so far among the Kirghiz. In one of the tombstones a tree grows, protected by walls of planks. Slightly to the NE we again reached the bank of the Tekes and the road ran for a time halfway up the steep slope. The river is quite $1 / 3$ of a mile wide here and surrounds a great number of small wooded islands. As far as we could see it rolled its dirty yellow foaming waves through a green band of leaf-trees in an ENE direction, forming a wide curve, open to the north. After descending the high bank we rode for a considerable time over a very marshy meadow, Tsagan ete, that extends for about a mile in width between the high ground in the $S$ and the edge of the Tekes woods. The hoarse piping of pheasants tempted me from the bushes, but, as so often before, my mapping presented an obstacle to shooting. Not far off our camp had been pitched on the edge of the Tekes woods. We had scarcely reached it, when a storm broke again and the rain prevented our enjoying the beauty of our camping place.

The Tsagan ete meadow grew narrower again as we rode on in an ENE direction. We crossed a broad, stony river bed, Tsagan tsäy, on the way that leads from a wide southward opening in the ledge of the bank northward to the Tekes. During this stretch the Tekes flows in a wide bed, surrounding many small islands. A strip of woodland runs

June 2 nd.
Campal Tchulak Terek. along the north bank, crossing in a few places to the south bank. In places, where the road is intersected by some small stream, the ground shows a disposition to be marshy. The hills on the north bank and the high ground on our bank draw closer to each other round the river bed. When the meadow comes to an end, the road leads up the ledge of the bank to a plain going in mounds and waves, across which we rode for about an hour and a half until we reached the valley of the Kök Terek, a mile or two in width. Here, too, a steep, high ledge runs along the E bank of the river quite close to the latter. The foaming little river flows embedded in a long and narrow belt of leaf-trees. We crossed the river quite near its junction with the Tekes at a place where it runs in two arms of about 35 feet in width. The water is no higher than the horses' knees. The current is about 2 I/2 metres per second. The bottom is covered with large stones. The ledge of the Kök Terek's bank does not extend as far as the Tekes, but turns eastward and goes in a series of hills, very frequently broken by clefts or river beds in a $\mathrm{S}-\mathrm{N}$ direction, or rather SE-NW. Between it and the Tekes there is a large meadow or plain, intersected here and there by small water-courses. A belt of leaf-trees runs on the left a mile to a mile and a half from the road, marking the course of the Tekes. Approximately in the centre of


Kirghiz horses grazing nem the river Tekes.
the plain stands a small granite mountain, Qara 'lopun, which has given its name to the plain. In some places the plain is rather marshy. At 5 p.m., having ridden for ten hours, we came to Tchulak Terek or, as the Kalmuks call it, the Mukhur Terek river, on the bank of which we encamped. Here there are some strips of field tilled by Kirghiz and some houses built of clay. Onc of them was inhabited by merchants from Qulja, who trade with the Kirghiz. You can buy sugar, tea, rice of poor quality, flour and various things here at prices that are $50-60$ per cent higher than in Qulja. The Tchulak Terek gorge and the district on the Terek before it are inhabited by Khazaks of the Alban tribe, of which about 500 yurts have remained Chinese subjects, while all the others have gone over to Russia.

June 4th. I was unable to write up my diary yesterday. We reached our camp after dark and Camp at the on the advice of my new Kalmuk interpreter the caravan had taken the wrong road and mouth of the only joined us after II p.m. Thanks to some bits of rusks that Tchao found in his river Litlle saddlebag and a little milk, we managed to allay the worst pangs of hunger.
Dshirgalan. The three arms of the Tchulak Terek are by no means dangerous. The water is no higher than the horses' knees and the whole crossing does not take more than two minutes. Here, again, I noticed that the level of the water was higher than the surrounding country. The strength of the current evidently drives the water over these places so swiftly that it has no time to spread. The bottom is stony; the current is $2 \mathrm{I} / 2 \mathrm{~m}$ per second. We travelled in an E direction towards the heights S of the Tekes. The ascent is slightly steep, but once you reach the top, the road leads over a large, slightly rolling plain to the Kok-su, which is reached at the spot where it flows out of the mountains. The place is very beautiful. The river has cut a narrow channel between the surrounding rocks and mountains. A bridge has been thrown across the river at one of the narrowest spots. The road leading to and from it, but especially to it, is very rough, winding among and over spurs of rock jutting out from the perpendicular mountain. With the supply of a little earth and some blasting

for a distance of about 500 yards it could easily be made passable. The bridge consists of logs laid across the river with pieces of boards across them. For China it is quite good, and could easily be strengthened, if necessary, by trees brought from higher up or from lower down near the course of the Kok-su. The river is very swift and obviously deep. Just above the bridge it forms rapids.

Storms and the water have hollowed out the mountains on either side and formed enormous pits and more or less deep niches and grottoes, in which the storms produce astonishing sounds. E of the bridge stands a large piece of rock, on the SW face of which goats are carved; these carvings are apparently of great age. A little higher up the riser, where the road winds just above the rapids over the smooth rocky spurs of a perpendicular mountain on the E bank, there are various carvings on the walls of three large, niche-like hollows, mostly depicting goats and marals, executed in the same primitive way as on the Ketsu-su, but also some hieroglyphics in various parts of the mountain. Some are undoubtedly of ancient origin, others seem to be comparatively recent. In drawing them I noticed that almost all the new ones were decorative reproductions of the half-obliterated old ones. Higher up on the face of the mountain about 14 feet from the ground in an inaccessible place there are some drawings that are almost entirely erased. I studied the spot through my glasses, but could only make out some goats or parts of them.

There are roads along the tributaries to Kok-su, over the Kapsalan pass to Little Dshirgalen (little used) and over the Khurdai and Sarri ur passes to the Qaragai ash mountains. These roads, as well as the road up the gorge of the river Kok-su, are said to be very stony and rough. The small sample that I saw of the Kok-su gorge was not promising.

E of the river Kok-su the S bank of the Pekes is fairly high and is not intersected by a single water channel along the whole way to Little Dshirgalan. This plain is called Qaradala. The grass is poor and you see no more herds grazing. Between this plain and
the Tekes lies a low strip of land, $1 / 3$ to $2 / 3$ of a mile wide, on which there is a sparse growth of leaf-trees in the places I saw and on the opposite bank and islands of the Tekes, some of the trunks being of good size. On this part of the road the Kirghiz' yurts are all on this low ground below the ledge of the bank. Their herds find quite good grass there or on the mountain slopes.

After riding for 7 or 8 miles along the Qaradala plain we came to the conclusion that the caravan must have been left behind, so we sought shelter in a yurt, where we were made welcome by some hospitable Kirghiz. We were very tired and after a short, but desperate, fight with vermin, I fell asleep and slept excellently under my raincoat, using my saddle as a pillow.

The stony and hilly roads of the Aghias had told on the horses and to spare them on the comparatively long ride to Dshirgalan I bought five oxen from the Kirghiz to carry the loads. For a considerable part of the monotonous road across the Qaradala plain I had the company of a decent young Chinese commercial traveller, who sells tea to the Kirghiz and Kalmuks. He praised the former in particular and prefers to do business with them. Besides transacting his business he vaccinates the local population at the expense of the Chinese authorities. The serum is bought in Russia. A little later we were joined by a tall, heavy Kirghiz, the Zangi of 100 yurts, and his still fatter brother and two other Kirghiz. During these rides you constantly travel in the company of one or more strange horsemen, who ride silently by your side, if there is no interpreter available. If you stop to look at something or to make some notes, they stop too, hold your bridle, help you to mount and so on, and then you separate again from these helpful strangers, with whom you have not exchanged a word for several hours. The Zangi offered us a cup of tea in the shade of an old tree at the foot of the Qaradala bank. He secured some rugs, tea, boiled milk and millet from an adjacent yurt, the millet being munched dry or soaked in tea.

Between Kok-su and Dshirgalan the Tekes flows in a broad bed, often dividing into two or more arms and sometimes spreading over a considerable space. Both banks, or at any rate the greater part of them, are covered with leaf-trees and bushes. The Qaradala plain makes a steep drop of $20-30$ feet to the low ground along the river that I have mentioned. Kirghiz occupy it in the summer. In the $S$ the plain ends in grassy slopes, often steep and running parallel to the river at a distance of a mile or two and gradually leading up to the mighty chain of mountains that bounds the plain in the $S$. At a distance the north bank seems to be of the same nature on this stretch. The mountains are at some distance from the river and approach it in long, grassy slopes. As it gets nearer to Dshirgalan the valley grows narrower and the river makes a long curve, open to the north, before it finally takes a northern course from Dshirgalan and disappears from view, tightly enclosed among the mountains. There are two fords across the Tekes between Kok-su and Dshirgalan, one close to Qara Tukha, where the river widens into a fen and the other further east. It looks, however, as if the river could be crossed almost anywhere except at high water ( $21 / 2$ to 3 months), when the fords are also impassable.

For about 8 miles from Little Dshirgalan there are tilled fields along the road and ariqs have been made. The land is tilled by Kirghiz and here and there you see clay houses.

Sometimes a yurt is put up inside a mere enclosure of mud walls. Chinese ploughs are used and the land yields a 3 -10 fold crop.

We left the Tekes valley at the place wherc it turns northward, and for a short time went up a narrow cleft between the slopes in the $S$. Proceeding in a NE direction over a succession of small hills, we came to the valley of the Little Dshirgalan, about a mile wide. On this hill which forces itself between the Dshirgalan and the Tekes in the shape of a long point a great number of kurgan-like mounds are found of varying size from 80 paces at the base to 4 or 5 paces, close to the spot where the hill begins to drop towards the Dshirgalan. They form three groups, the relative positions of which are seen in the illustration.


Group a consists of 13 mounds grouped round two larger ones. The mounds are of earth and there is a depression round them. The largest look approximately like this in section:


They are grouped as shown in the sketch on the left. The mounds in group $b$ are less connected. The one lying furthest north is very large, of rough boulders and surrounded by a stone ring at a distance of 7 feet from the base of the mound. Two tracks of stones lead from the ring to the foot of the mound. Most of the larger mounds are surrounded by such rings and two tracks from opposite sides lead to the foot of the mound. Occasionally between the outer ring and the mound there are smaller circles of stones, a couple of paces in diameter, and usually a semicircle or $3 / 4$ of a circle of such small stone circles runs outside the stone ring. One of the mounds is enclosed in a stone ring and two semicircles of stone circles one beyond the other. The tracks to the foot of the mound are not always from the same direction. In the centre of all the mounds that I ascended there was a very considerable hollow as though the stones had originally been laid in the form of a ring or had been pushed aside in hunting for treasure. However, none of these hollows reached the level of the ground. The sketch illustrates one of the mounds in the best state of pre-

servation. The largest is 80 yards at the foot and $3-4 \mathrm{~m}$ in height. The surrounding ground is level and contains no stones. The latter could, however, easily be collected on the slopes or in the beds of the rivers. Group $c$ is the largest and consists of 56 mounds grouped as shown in the sketch.


From the mound flanking the Tekes valley the view over the river and slopes is wonderful. The Kirghiz could give me no explanation whatever. No objects are ever said to have been discovered there. There is a legend that centuries ago the mounds were made by Nukhfaiganber. Who he was and whether they served as the foundations for tents or burial mounds, nobody could tell.

We encamped close to three Kirghiz yurts on the bank of the Little Dshirgalan. I was lodged in the comparatively clean yurt of a bright little Kirghiz woman. Her husband was away, but she regaled me with milk, cleanly served. The other yurts were occupied by the husband's parents, grandmother, sisters and the wife's mother, none but relations.

Yesterday I spent the day in exploring the mounds on the hill and making anthro- Jume 6th. pological measurements of about a dozen Kirghiz. They are better developed and, above Campat all, infinitely cleaner than the Kalmuks. You are not enveloped in such a dreadful stench

## Tsatse.

 as when measuring Kalmuks. The majority of the Kirghiz skulls that I have examined have the highest point of the sinciput very far back. The nose is well shaped and fine, but small. The eyes are small, but the caruncle is almost always uncovered. The cheekbones are less prominent than in the case of the Kalmuks. They are considerably taller, but there is no trace of the elegant lines and well shaped hands of the Chinese. Their expressions are healthy, condition mediocre. There are some thin people, but very rarely any stout ones. Their muscles are only slightly developed. The men wear small, slightly flat skull-caps of cloth or velvet with a knitted border of the same colour as the cloth, not the pointed little cap of the Sart. Over this they put on a thick fur cap or a grey felt cap with a black band round the edge of any shape they like, to protect their heads from the sun. They wear their trousers outside their top-boots, with a broad, black stripe of cloth along the inner side of their legs. They all chew the usual greenish-brown tobacco in the shape of a small pellet the size of large shot.The Kirghiz does not possess much furniture. A bed composed of three parts, on which two people can sleep tightly wedged and which, when put up, is of semicircular shape, small pails of various sizes hollowed out of tree-trunks and provided with rope handles, a cast-iron kettle with a tripod, a tea-kettle with a tripod, leather bags for *kemyzy, wooden and china cups, pillows, knitted covers, rugs and carpets, if they can afford them, and that is about all. Instead of an axe they use small hoes, fastening the iron point to the end of a crooked branch. Besides, there is the yurt with a couple of pockets on the wall and other equipment, saddles with bags and pouches for cups, bridles that also serve as halters, pack-saddles, tethering straps etc. That is about all you find in a Kirghiz yurt except some small chests with metal fittings, the contents of which you have no opportunity of examining and according to the number of which you can roughly gauge the owner's wealth. The richer ones have a curtain of coloured cotton, larger vessels of enamelled tin etc. Samovars and sewing machines are a great rarity.

This morning we started on a shooting trip up the Dshirgalan. After riding south for two miles down the river we came to a bridge, 16 ' long, constructed in the same way as the bridge over the Kok-su at a place where the river was closely confined between two rocks. On crossing to the other side we started to ascend the mountains. At first the road leads SE across a meadow, about $2 / 3$ of a mile wide, keeping the river on the right and a slight rise in the ground on the left. The valley describes a curve and grows narrower. When the road turns north, it leads fairly high, above the foaming river along a steep slope covered with leaf-trees and firs. At this season of the year the Kirghiz yurts that abound along the lower course of the river, come to an end here. The character of the opposite bank is the same. The scenery along this stretch of road is very beautiful. At a place where two branches of the river meet and surround a fine, pointed mountain, Kain Bulaq, the road turns ESE along the high bank of one arm of the river. The narrow cleft widens by degrees, and as the road ascends, the slopes become less steep. Trees only

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Two Kalmuk women (Durban summun)
and a baby with its head fixed to a
board. Lille Dshirgalan.
grow on the opposite bank which faces N and in the bed of the river. The road took us down the slope and along the bed or along the top of the nearest ledge of the bank. The open ground above it is a rolling plain intersected by water-channels with deep and steep beds. Quite close to the S the snow-capped peaks of the mountains are visible. All the slopes facing $N$ are covered with firs. We encamped by the river in the shelter of a clump of trees. Here again we came across some poor yurts inhabited by Kalmuks (Durban summon), who are employed in watching the cattle and horses of the Kirghiz, as there is excellent pasturage. Lower down the river the pasturage is much worse.

June th. Today I returned from shooting in the mountains. I spent the night on the top of Camp at a mountain and climbed about with Numgan for over seven hours along the wooded slopes.

Tsatse Our efforts proved successful. I shot a bugha with i2-branched antlers. There were many
(Tchatche in traces of bugha and milos".
Kirgh.) A yigit, whom I had sent to reconnoitre the road over Däbrin dawan and Sarvytur to Qaragai lash, reported that it was impassable at present owing to water and snow. From the mouth of the Little Dshirgalan you can reach Qaragai tach in 2 or 3 days by this road, but the ascent and descent of the pass are said to be so steep that it is difficult to negotiate them with pack-horses.


I had to spend last night again without my baggage. As I was obliged to ride down to the bridge over the Little Dshirgalan to resume making my road-map, I let the caravan go direct over the hills dividing the two rivers of the same name. It was to go down the

June 10 Campal Aq Bula Great Dshirgalan and meet me in the evening, while I worked in the opposite direction. Owing to a misunderstanding, however, it stopped after crossing the hills, and when darkness overtook me after I had been riding for almost 13 hours, I was still about a dozen miles from the tents and had to avail myself of the hospitality of the Kirghiz. You never require to appeal to them, but merely to accept their proffered hospitality. The women come out and offer you cups brimful of "airan", a kind of very sour milk, pleasant to the taste. It is not exactly appetising, when the old women rub the rim of the cup with their dirty fingers or lick it clean, but in Rome you do as the Romans do. If you enter a yurt, rugs, carpets, covers and pillows are spread out at once in a place of honour and you are given tea and in richer yurts very small, square loaves, baked in sheep's fat. The Kirghiz drink tea with boiled cream and milk, into which they often put salt. They use no sugar. Soon an unwilling sheep is pushed into the yurt and the host announces that it is to be slaughtered in the guest's honour. The boiled mutton is eaten greedily by all the occupants of the yurt, including any guests who may be present, from a common dish and is washed down with a little broth or gravy. The host expects a gift from the guest equivalent to the value of the sheep, even though the stranger may not have touched the dish. Sometimes the poor animal is slaughtered inside the yurt in the presence of the guest. When the sheep has been bound and the butcher is ready to strike with his small knife, everyone stretches out his hands, palms upward as if in prayer, and at a signal from the host and after everyone has stroked his beard with both hands - whether he has one or not - the ceremony

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of slaughtering begins. The man wielding the knife murmurs prayers during the act. A Mohammedan will not eat meat that has been slaughtered by any but a Mohammedan, i.e. without certain prayers.

The hills between the two Dshirgalans present no serious obstacles. There are considerable slopes, but they are not particularly steep. The ground, however, is very stony. From the top you obtain a wonderful view of the valley of the Great Dshirgalan from far to the SE to its junction with the Tekes. There is a plain, about a mile in width, between the river and the hills, mostly level, but at times rising to a considerable height. The river has cut a deep bed in the plain, in which it winds foaming and roaring. The opposite bank is similar in character -- a high plain leading up to a grassy stretch of hills with clefts here and there, through which a rapid stream or small river runs into the Dshirgalan. In its lower course the river is as much as 100 yards wide and often divides into several arms. There are many yurts at the foot of the hills and along the bed of the river. The number of yurts in the valley is about 200, forming two Zangi districts. A Sart and a Russian Tartar have built two clay houses, in which cloth, medicine, flour, rice, salt etc. are sold at high prices.

The road leads up the river over excellent grass-land. At times it descends into the bed of the river, but for the greater part it runs along the plain. The hoarse piping of pheasants and some shining yellow geese made me long for a shot. Where the river debouches from the northernmost spurs of the mountains we came down a steep road into the bed of the river which looked like a charming park here, fruit-trees growing between the foaming river, the steep bank and the wild spurs of rock in the S . Not far off there was a poor bridge, i4 feet long, or rather a few planks thrown across the river that is confined between the rocks. The road on both sides of the bridge is over bare rock for several yards. Gunpowder would be needed here to make it fit for wheeled traffic.

On the other side of the river the road goes NW down the river. Excellent ground led us to the hills and about 2 miles further on we reached the Aq Bulaq, a tributary of the Great Dshirgalan, densely populated by Kirghiz (about 200 yurts). We encamped on the spot where the road is intersected by the Aq Bulaq.

June Ith. Camp at

## Talde

 Bulaq.The Tekes, which we had now definitely left, is a mighty river at this time of year and cannot be crossed except by a ferry or by a bridge. There is a ferry at Gilan and bridges at Qizil Moinak at the mouth of the Aghias and near the mouths of the Kok-su and the Dshirgalan. Except at high water it can probably be forded at almost any place and the water does not reach higher than the belly of an average-sized horse. The fords mostly used are Gilan, Tokhtuntukha, Maatie, Tchulutu (Tasetköl in Kirghiz), Säkhantua (Agdalai in Kirghiz) above Aghias, Ambinetukha (Antaral) and Atambeltchir (Atyng tau) above Tchulaq Terek and Tavunsala (Beshötköl) a little above the Kok-su. There are a couple of other fords below the latter river.

During our ride to-day we followed at first a narrow hollow between the grassy hills that divide the valley of the Great Dshirgalan from the Kunges. The slopes are so steep and the hollow so narrow that some digging would, perhaps, be necessary for wheeled
vehicles. The ground is good and the ascent very gradual until you reach Aq Bulaq dawan. From this slight pass a wide view is revealed of the green hills intersected by many valleys. The descent, too, is easy. The road very soon enters a valley, Shár Bulaq, along the bottom of which the river, from which it takes its name, winds until it runs into a small fen overgrown with reeds. The road leads along one side of the valley, but now runs along the bottom for several miles until it debouches into the valley of the Kunges. A water-channel flows from the fen, both its banks being boggy and covered with reeds for long distances. The water is salt, hence the name Shár Bulaq. The ground along the road, however, is firm.

About 4 miles below the fen, about $2 / 3$ of a mile NW of the road, there is an upright stone, about 1 m high and 0.30 m broad, standing in a slight cauldron-shaped hollow. On the stone a woman's face has been carved fairly well. It is different in form from those I have seen hitherto and the work is incomparably better. The features are rather classical, the hair is reproduced to a certain extent and an attempt has been made to give a curve to the sides of the head and make the ears protrude and not merely indicate them on the front of the stone. Some pieces of the upper part of the stone are broken off and it is deeply embedded, inclined slightly forward and facing SE.

At the place, where the hollow debouches into the valley of the Kunges, the road turns E, parallel to the hills that we had crossed. The ground is good, but the grass infinitely worse than on the hillo or in the smaller valleys. Far to the N a line of yurts is visible, with frequent intervals, indicating the course of the Zanma or Tchakpä as the Kirghiz call it. The Kunges flows beyond it, almost in a parallel direction, and still further N the valley is bounded by a huge dark mass of mountains. We passed the Tchegir Bulaq mazar at the mouth of the gorge of the same name, the site of many Kirghiz yurts. Further on, the surface of the ground is uneven, broken into small mounds, on a triangular, wedge-shaped eminence at the mouth of a small gorge. It looks rather like an old mazar or dwelling place. Next to it are some low, though not small, mounds of earth, one of which, $30-40$ paces square, specially attracted my attention. Just beyond we reached our camping place next to an extensive and fine mazar at the mouth of the Talde Bulaq gorge.

A couple of hours' ride over a level plain, crossed only by one or two small streams, brought us to the bank of the river Tchakpä as the Kirghiz call it or Zanma in the language of the Kalmuks. The ford is at a place, where it flows in three arms, the width of which is 28, 28 and 2 I feet. The current is $3 \mathrm{I} / 3 \mathrm{~m}$ per second, the depth up to a horse's belly and the bottom firm. The bed slopes gradually towards the middle. It did not take more than I I/2 to 2 minutes to cross all the three arms. The river seems to flow from a cleft in the mountains on the right in a direction $278^{\circ}->85^{\circ}$. Unlike most of the tributaries of the Tekes, it has not cut a deep bed, but flows almost on a level with the ground in a very flat bed. The road continues in an E direction. On the right is the Narat mountain range, known by different names, its most outlying spurs running along the road at a distance of a mile to I I $/ 3$ mile. On the left lies the plain in which the Tekes flows, hidden from our sight, and ending in the enormous mountain range between the Kunges and the Kash. This, too, is known by a number of different names. Shortly before our camp to-day it
was called Turgun tau, now it is called Ushköptertung tau, higher up Qaragai su tau, opposite the Taya su Keng su tau and still higher Djambenyng tau opposite the Narat.

The mountains seemed to approach each other by degrees and the valley narrowed before us in a striking manner. On either side of the road, both at the foot of the slopes and further down the river, you see many Kirghiz yurts. Most of them are congregated on the small water-channels that flow from the mountain clefts down to the river Zanma or the Kunges. In this valley and the gorges on either side there are two akalaktche districts on either bank with about 1700 yurts on the left bank of the Kunges and about 1500 on the right bank up to the junction of the Tekes with the Kunges.

In the Tekes valley and the gorges on the sides there are three akalaktche districts with about 2500 yurts in all. Rifles seem to be a rarity among the Kirghiz. The few that exist are either antediluvian muzzle-loaders or Berdan rifles which cost some dozens of roubles here. Cartridges, which are sold in Qulja at 20 roubles a hundred, cost as much as 50 cop . each here. 7 or 8 miles $E$ of the Zanma the road takes us up to a row of hills projecting from the mountains. The ground goes for some time in large waves.

In the distance we caught sight of a yurt with a little white flag over the roof. This is the conventional signal that is flown for three months in the case of the death of a prominent Kirghiz. Later we met a wedding procession. The bride, preceded by two old camels and two young ones carrying her yurt, is decked out in her best and sits on a saddle with rich silver fittings, with a couple of women by her side and followed by a Kirghiz leading one or two packhorses laden with her dowry. Everything is absolutely new and furnished with embroidered, coloured covers. Both the cases and the carefully tied, red painted yurt poles look neat. The bride's hair is done in small plaits that fall all round her face. She looks stern and determined and her expression is unattractive. Further on we met long lines of Kirghiz women, all on the way to the wedding and sitting on expensive silver-mounted saddles.

We encamped on the rolling ground by a small stream, Tell qara su, close to threc Kirghiz yurts inhabited by the elder of ioo yurts and his family. The grass during to-day's journey was very luscious.

7une 13th. The road still follows the left bank of the Kunges. The horses simply waded through

Campat
Tai-asu. distance from them. The road crosses many small streams, along which there are rows of Kirghiz yurts. The beds of the streams are not deep and there is no sign of marshiness. We passed a couple of mazars with some pretensions to decorative effect. Following the advice of a couple of Zangis, who had come to meet me, we made an attempt to cross the Kunges, because the north bank is said to be level, whereas the south bank rises very much and is very hilly with incessant ascents and descents to small streams that have cut deep beds in the ground, or rather, flow at the bottom of deep ravines. We reached the Kunges at a spot where the bank is marshy for a quarter of a mile and there are no trees in the bed of the river. The river flows in a large arm here, $1 / 4$ of a mile in width, which soon seems to divide into two main arms with many branches. The bottom is stony, the current $20 / 7 \mathrm{~m}$ per second. This latter was difficult to measure, for most of the floats dis-

appeared at once below the foaming waves. The water almost came up to the horses' back, and they were nearly knocked over. We had to give up the idea of crossing with our packhorses and had to take the worse road. It does not, however, present any difficulties worth mentioning and scarcely any digging would be necessary to make it fit for wheced tralfic.

The hilly ground recedes from the river in a few miles and affords space for a couple of narrow meadows divided by a projecting tongue. We encamped on the second of these meadows on the wooded river bed just below the place, where the road goes in curves up the slope to the Tai-asu and Dagin dawan.

We covered about 27 miles to-day in II $1 / 2$ hours. We were all so tired that we did not trouble to put up the tents or to boil our soup. A bit of meat roasted on a skewer, a cup of tea, and we rolled ourselves in our blankets and placed the saddles under our heads. Since the hilly ground began on this side of the river there have been no more Kirghiz. We saw their yurts constantly on the opposite bank. A merchant from Qulja keeps his herds here and employs a watchman. A small caravan with goods on the way from Qulja 10 Yulduz has been encamped here for a couple of days, waiting for fine weather for crossing the Dagin pass. It is a starry and beautiful night which promises fine weather for crossing the mountains to-morrow.

Hassein, whom I had sent with two of our Kirghiz guides to fetch horses and guides from the other side of the river, returned late at night. My red visiting card had overcome all obstacles and in addition to seven horses and four Kirghiz I received a present of two sheep from a couple of Zangis. At our last camp, where things were managed by me personally instead of by the visiting card of an unknown notability, I had some difficulty in obtaining oxen for our loads. Since leaving the Aghias, I have hired oxen or horses for the greater part of our loads in order to spare my own horses which are exhausted by the prolonged labour, especially in the mountains, and the poor food of the last month (grass since Kura).

June I $4^{\text {th }}$.

Camp at thetop of Dagin Lukanin's lead over Dagin dawan and to attempt the Narat myself with Izmail, Numgan dawan. At first the road went along the long meadow on which we had spent the night. It ends where the river presses against the hills in the $S$. Here the road leads into the wooded zone of the Kunges along the slopes of the hills. For a short time the river is on the left quite close to the road. After a couple of miles the river and the belt of wood again take a more northerly direction than the slope. We rode eastward for not more than a mile or two over the meadow that forms a wedge between them and the road then turned SSE and led us up the slope, whence we continued practically due $S$ to a small pass a couple of miles off. During the ascent the road runs along the ridge of a narrow hill from N to S with a cleft on either side. The ascent proceeds in stages up a very steep slope, then down again into a small hollow that separates us from the next part of the slope. Small clumps of trees grow in the clefts here and there. The Kirghiz call the pass Naratnung ashevy dawan and the mound, where the descent begins, is called Naratnung djota. The name Tai-asu dawan is only applied to the pass leading from our camping place to the Dagin dawan. The descent is not so stcep and only about $2 / 3$ of a mile long. Below lies the valley of the Zanma, about $41 / 2$ miles wide, from $E$ to $W$. Near the mountains that we had just crossed, the river flows in two arms, the northern one - a small stony stream - being fringed with leaf-trees. The main arm flows about 350 yards further south and often divides into several arms. We crossed it at a place, where it flowed in two arms, 30 and 20 feet wide respectively. The water comes just over the horses' pastern-joint, the bed of the river is stony, the current slight. The aneroids indicated 596.3 and 592 or a considerable rise in comparison with the Kunges valley, where they indicated No. i 649.7 and 648.9 and No. 2644 and 643.6 at Tai-asu. The grass is quite as luxuriant as in the Kunges valley. The south bank goes in waves, while rising more and more to the $S$. Wc crossed a couple of small streams. There are no Kirghiz here at this season. They come at the end of June and stay until the middle of August. The Kirghiz say that the road along the Zanma valley to Dagit and Narat is rough and difficult. The piece of it that I saw seemed hillier than the Kunges valley, but covered with grass everywhere and without a sign of special roughness. This does not matter, however, for 8 or 10 miles to the west the valley is bounded by hills projecting from the mountains in the S. It is strange that the Kirghiz in Aq Bulaq said that they knew of no other road than the one over the Kunges, for, if the road indicated on the map over the mountains from Aq Bulaq is passable, it would reduce the distance considerably. There is no advantage in taking the Zanma road on reaching the Kunges valley from Aq Bulaq, except that you avoid the hills between the Zanma and Kunges. The pass that my caravan went by was similar to the Naratnung ashevy dawan - not too steep a slope with some slight hollows. Their road to Dagin dawan is shorter and you need not descend into the river with its steep banks just before the mouth of the gorge leading to the pass.

At 3 o'clock we reached the mouth of a gorge after a long ascent of the open slope. The Narat range in front of us has the appearance of a number of short ridges from $S$ to $N$, connected by a rather lower chain of mountains that crosses them, where they seem to be
highest. There is a good deal of snow in the crevasses and higher up the mountains. The road leads southward to one of the large gorges between these ridges. The mountain connecting these two walls seems to be lower than in the neighbouring gorges. Just before the mouth of the gorge after some steep climbing up and down, we crossed the Dagin usun, a swift and low lying river flowing from the pass. On the opposite bank I caught sight of my caravan climbing the gorge as slowly and laboriously as we were. No doubt, they were as surprised as I was at our unexpected meeting. It appeared that my guide, who had undertaken to pilot me to Narat dawan, considered his task accomplished after crossing Naratnung ashevy dawan. He said he did not know of any other Narat.

After arguing and threatening in vain for half-an-hour I was obliged, in the absence of a guide, to take the same road as the caravan. You waste no end of time whenever you try to obtain the slightest information. Owing to the inefficiency of the interpreters you seldom get an answer to your questions and are forced to stand and listen to a great deal of unnecessary chatter, from which you have to draw your own conclusions.

The ground in the gorge is very rough, nothing but large or small stones, most of the latter having sharp edges. The further we went, the more stones there were. In many places there was not room enough for a horse's hoof between them. The ascent is not very abrupt. We went along the slope of the left bank of the river which is fairly stecp in some places. Here and there the road is intersected by hollows with snow, but there is a bare patch in most of them that you can ride across. If not, you have to climb higher up the slope. We passed a small tent, in which a Sart from Qulja had been waiting for 40 days for an opportunity of getting his stock of goods over the pass. The only food he had was tea and flour. He warned me and assured me that it was impossible to cross the snowed-up pass.

After riding for about $31 / 2$ miles we crossed the river and then the steep part of the pass began. So far the pass had not been too steep to prevent a road for wheeled traffic being made by removing the stones - which would necessitate blasting. It should be possible, too, to make a more or less zigzag road up the steepest part of the pass, along which vehicles would have to be helped by men on foot. It would not be easy, however. The snow increased the difficulty of our climb considerably. We had to dismount and lead our horses which often broke through the crust. The worst bit was a stretch of about $\mathrm{I} / 4$ of a mile. The ascent then became easier and we crossed a couple of small hollows. There was a great deal of snow and it was difficult to get the horses across. At times they sank to their backs. We could never tell how deep the snow was in these patches. It might cover a bottomless cleft. It was 7 o'clock by the time we reached the top of the pass after riding for 12 hours. Realising that the caravan, which I had last seen approaching the steepest place about 6 o'clock, could not possibly get across the pass that day, I decided to spend the night where we were. There was not a blade of grass for the exhausted animals nor a bare patch on which we could lie down. Nothing but stones and rock. There is a lovely view northward from the pass across the valley of the Zanma, the mountains dividing it from the Kunges and the valley of the latter.

By 9 o'clock it was obvious that the caravan would not reach the top that day. Heavy


The mother of the Khan of the Torguts at Yulduz in her yurt.
clouds enveloped the mountains on both sides of the pass and descended on us in the shape of impenetrable fog. Izmail sighed deeply as he stared at the heap of stones and murmured in broken Russian: „Here a man died». Glancing at the clouds, he declared that a buran was coming and that in such weather people were always buried by the snow on the tops of the mountains. We had fallen asleep, I in my raincoat, Ismail in his soaking boots, covered by the snow carried by the storm, when one of the Kalmuks woke us soon after 11. He had brought some rugs, a teapot and some chips of wood from the caravan. I need scarcely say how delighted we were with such unexpected comfort in the cold and storm. At the top of the pass water boiled at $+80.28^{\circ}$. The mountain ridges that enclose the pass do not appear to be particularly high and a detachment that was defending the pass might be circumvented, though not without great difficulty.

June 15th. The caravan caught us up at 9 this morning and we started to descend the pass together. Campat There had been a good deal of trouble in getting the pack-horses up the steepest parts. Bail Bulaq Several horses had sunk deep into the snow and all the loads had had to be carried up (near Little the steep slopes. Various things had been broken, of course. The horses had had no
rulduz.) fodder all night. The men had drunk a little tea and found some rusks.
The southern slope of the pass is not so steep, though the higher parts are quite as stony. There is a small river here, first on the left and later on the right. At a turn of the road we had a view of the large, green valley of the Yulduz, or the Cultus as the Kalmuks call it. A ride southward of 3 or 4 miles brought us to the mouth of the pass. Here the road made a sharp bend to the ESE and took us at first along the lowest slope of the moontrains and then across a plain with poor grass. About $2 \mathrm{I} / 2$ miles further on we crossed a river bed, about 220 yards wide, at the bottom of which a small stream flowed. An hour later we reached the large camp of the Khan of the Torguts. He had left for Peiping last

year and his mother was in charge during his absence. We put up our tents on a little stream with clear water about $\mathrm{I} / 4$ of a mile W of their camp. (Between the camp and the river that we crossed there are many remains of stone cairns of varying size similar to those on the Little Dshirgalan, but smaller and not in such good preservation. Most of the heaps of stones have been thrown up by rodents.)

We put up our tents without anyone taking the slightest notice of us. Later in the day June 17 th I sent my card to the Khan's mother to apprise her of my presence. The interpreter returned Campat with a message that I would be received next day, and yesterday morning one of the Khan's Bain Bulc officials came to fetch me. Instead of leading me to the "Khanshan, as the interpreter calls her in his bad Russian, he invited me into a yurt, where the highest officials of the "court" were assembled, about a dozen men, whose buttons of office in their caps were the only things to distinguish them from ordinary filthy Kalmuks. While we were sitting and talking, my officious introducer brought the news that the Khansha had fallen ill and could not receive me that day. I lost no time in expressing my regrets and saying at the same time that, having undertaken this long and difficult journey with the sole object of paying my respects to her, I should in that case saddle my horses at once and take my leave, which would deprive me of the opportunity of presenting the letter of Biliktu Bashi (Dr Ramstedt) to the Khan. Soon a message arrived that the illness had passed and that, if I would wait while her hair was done for the solemn occasion, I should be presented that morning. I was conducted past a row of bowing Torgut functionaries into a large yurt, draped in red at the top, where a Kalmuk woman of 35 or 40 with a pleasant face came forward a few paces to greet me. The traditional tall, narrow wooden pail with kumys stood in the middle of the room. Facing the entrance stood a beautifully carved green table, richly
decorated in gold and covered with chased silver cups and other objects in honour of the burkhuns placed above it. On the right there was a throne-like bed with a canopy embroidered with Chinese dragons. In front of it a couple of seats made of hard, double cushions with small benches that served as tables. The lady seated herself on one of them, sitting sideways, in a half European, half oriental posture, while the other was occupied by a little snubnosed Pekinese. She offered me a seat on the left of the entrance and tea, prepared with butter and salt, was served in graceful silver cups. Our conversation was the most commonplace talk imaginable. I presented her with a watch and a mirror, besides a dagger each for her absent daughter and son. I told her that I had a revolver for the Khan which I would give him when we met on the way to Peiping. The watch and mirror seemed to amuse her. When I asked, if I might photograph her, I was told that, if Our Lord allowed me to visit their camp again, she would give her permission. I pretended that I did not understand this polite refusal and calmly began, to the horror of the court officials, to prepare my camera, explaining through my interpreter that the photograph would be charming and that I would send a copy from Urumchi. My determination decided the matter and all the jokes that I made my interpreter translate aroused much mirth. Though protesting a good deal, she posed very readily, both sitting and standing, for three pictures. Some time after my return her card was brought to me with a message that her ladyship had been taken ill again and was deprived of the opportunity of returning my call. Soon after, two sheep, a bag of flour and a square of brick tea" were brought to me.

The camp consists of about a hundred yurts spread over half a mile square on a briangular plain bounded by the river Baga Yulduz and high mountains on the opposite bank NE -SW, Kharsala ulu, as the Kalmuks call the chain of mountains with the Digit dawn ENE -WSW and Pain Bulaq ulu, a chain of smaller hills projecting from the Baga Yulduz, $\mathrm{E}-\mathrm{W}$. On the summit of the highest of the Bain Bulaq mountains a Kalmuk praying site was visible, indicated by a mass of sticks and coloured ribbons. The biggest yurts are occupied by the Princess, her second son and daughter and lama temples. No less than twenty large yurts are occupied by the latter. Each temple consists of two yurts that form an entrance-hall and a room for the burkhuns. The most important temples, like the yurts of the Khan's family, are marked by red cloth on the upper part. These temples are the holy of holies of the Torguts and the senior lama officiates in them supported by at least a hundred others. Their music, in which a muffled drum combines with deep, longdrawn trumpet sounds and the shrill notes of some other instruments, could be heard in my tent, testifying to the fact that constant prayers for the Khan and his family were ascending from these yurts to the burkhuns. It sounded mysterious and full of feeling in the distance.

I called on the senior lama (by permission of the Khansha), a fine old fellow with the head and dignity of a cardinal. The old man had heard of the flight of the Torguts from the banks of the Volga, but had no idea, what the cause was, nor how and when it happened. He mentioned that during the last few years the number of deaths considerably exceeded the number of births. He did not render any medical assistance himself, but many other

lamas, who taught each other, went in for it. They prepared most of their medicines themselves from herbs, roots etc. In the evening a smart Russian merchant called on me, Isakoff by name, the representative of the firm of Griaznoff in Omsk. For three years he had been buying oxen in Yulduz and Qarashahr. He drives about 1500 of them annually over Dagit to Qulja and thence along the Borolöla valley and so on. It shows great enterprise on his part to get so far with tens of thousands of roubles in silver without speaking Chinese or Kalmuk. He does all this for a couple of thousand roubles a year without having any share in the profits.

Last night a letter arrived from the Dzian Dziun about my coming journey through the Yulduz valley. This morning the Khansha gave orders that a yurt was to be put up at once next to my tent. People were fetched for my anthropological measurements, horses were provided for my journey to Qaragai Tash - it is really hard to imagine the magical effect produced by a letter from a high Chinese official among these people.

We started this morning with none but fresh horses, hired from the Kalmuks thanks June 181 to the influence of the Khansha, leaving all my horses and some baggage in the Khan's Lamacal camp in charge of Hassain, as I intend to wander about for a few days in the Yulduz valley at Zagat. in order to get some idea of it, not so much geographically as in regard to its means of com- Chuzynmunication, resources and population. At the same time I want to make a last shooting trip or Ukhe with Numgan in the direction of the Qaragai Tash pass in the hope of shooting an "Ovis Zultus S/ Poli),

We set our course about $70^{\circ} \mathrm{SW}$. For a time we had the westernmost spurs of Bain Bulaq ulu on the left on the other side of the mouth of the Dagit dawan. When these came to an end, the ground was slightly marshy for a distance of about 700 yards southward
to the river. We saw cattle grazing on the marshy ground, but our guide thought it wiser to make a détour with the pack-horses. Some low hills were visible far to the south. Behind them there was marshy ground, beyond which the Ikhe Yulduz flowed. We crossed a few small streams flowing southward to the river from the Kharsala ulu mountains. In about $3 \mathrm{I} / 2$ hours we caught sight, on the right, of the gorge that leads to the Kharnur dawan. This pass is said to be more difficult than the Dagit dawan and is only attempted by horsemen unencumbered by loads. A little further on there is a large mountain, Naryn ulu, the snowclad peak of which seems to dominate the rest. The Ulan usun, 15 feet wide and 0.15 m deep, issues from a cleft E of its foot.

After a ride of six hours we caught sight of a lama camp half-a-dozen miles to the SSW. We altered our course to $20^{\circ}$ and crossed the Tchulutu usun, also about 15 feet wide and very shallow. Just before reaching the lamasery we crossed the Buragultin usun, 7 feet wide, the water reaching the horses' pastern-joints. The bottom of all the rivers is firm, covered with small stones and without a trace of marshiness. The plain is firm ground with a foundation of stones, as is evident from the quantity of stones as large as a man's fist round the entrances to the rodents' holes. The grass is indescribably poor and there is not a vestige of trees, bushes or other fuel except dry droppings. We saw very few horses and sheep. The animals were very lean. During this long stretch we only saw about a dozen yurts grouped along the foot of the northern mountains or halfway to the river in the south.

The lamas had been informed of my intended arrival by the Khan's camp and had prepared an absolutely new and excellent yurt. This was all the more welcome on this cold and windy evening, as there was a downpour of rain immediately after my arrival. The lama camp consists of $40-50$ yurts set up in a square round an open space. The temple yurts are on the E side and are distinguishable by their tall poles with strips of coloured cloth. There were $250-300$ lamas on duty, half being grown-up and the rest novices. I called on the superior. The old man was sitting cross-legged on a rug and merely nodded in response to my greeting. His martial appearance, with heavy moustaches, would have been more appropriate to a medieval adventurer than a minister of God. I tried in vain to get some details from him about the flight of the Torguts from Russia. He had a very vague idea that his people had lived there once upon a time.

June 19th. The Yulduz valley is enclosed by large, snow-covered mountains in the $\mathrm{N}, \mathrm{S}$ and E . Here the road from Khurda or Kurdai (dawan) and Qaragai Tash dawan debouches and the Ikhe Yulduz has its source under the name of Jambe usun. This opening was our goal, when we started this morning accompanied by a few dozen inquisitive lamas. The plain on the W of the lama camp is of precisely the same character as the land we rode across yesterday, excepting that no marshy places are visible. The ground is firm with a substratum of stones. The grass is as poor, but there are a few yurts. On this side of the monastery lie the yurts of the I sumun; there are many sumuns between the Khan's camp and the lamas. The herds of sheep are rather larger than yesterday. The sheep themselves are larger than in the Tekes valley, but long-legged and lean. We saw only a couple of
horse "tabuns" and these were not large. Many of the horses, even among the young ones, are amblers. They are taller in general than the horses in the Surgan summun and among the Kazai Khazaks, but less deep-chested, though their legs are better developed. They have sloping backs, their heads lack distinction, they are broad and powerful, but rather stiffshouldered. We dismounted and drank some airan in a yurt which was inhabited by a widow with two children. The airan has a large admixture of water. The Kalmuks use it for making brandy, mixing one part of milk with two parts of water. When her husband died, the widow gave 30 of her 46 sheep and 10 of her ${ }_{15}$ horses and cows to the lamas. She slaughters three sheep and one horse or cow every year. The rest of her food consists of watered airan and dried milk products. We passed some yurts decorated with small flags. Among the Torguts this does not indicate a death, as among the Kirghiz, but that the inhabitants of the yurt are willing to be vaccinated. The serum is bought in Russia and the vaccination is done by lamas for a fee, but only with the consent of the Khan. The local population is vaccinated every three years, but complains of the expense.

The road led us across several insignificant streams that carry water to the Ikhe Yulduz from the mountains in the N . About ten miles from the lama camp we crossed a stony river bed, Khaptkha Ulgin su, dry at present, its three arms ( $145^{\circ}-140,45$ and 160 yards wide) running southward not far from each other. $3 \mathrm{I} / 2$ to 4 miles further east the Baintal usun flows in a bed that is $I_{5}$ feet wide and 0.2 m deep. After a ride of another six hours we again crossed the dry bcd of a river. At the entrance to the hills, between it and another dry river bed about 20 minutes from it, there were $30-40$ small cairns of boulders close to the road on the right, like those at Dshirgalan. Some of them are constructed with a certain regularity in straight lines that seem to form a right angle, one arm of which extends to the road. They are much smaller than those at Dshirgalan, but probably served as foundations for tents or yurts to judge from their round shape. The water flows later in the summer in these dry river beds, when the snow in the mountains melts. After seven hours' riding the road took us over the Zagan (sägin) usun, 25 feet wide, the water coming halfway up the horses' knees. An hour later we encamped on the Jambe usun, as the Ikhe Yulduz is called in its highest reaches. The men's first anxiety was to collect dry droppings, for here, again, there is no sign of any other fuel. From where the hills begin the grass was good here. Two sumuns of the Torguts spend a part of the autumn here on their way to the higher reaches of the Kok-su, where they spend the winter.

Owing to our starting late yesterday, I had to postpone the remaining io miles to Qaragai Tash, our destination on the present trip, until to-day. For half-an-hour the road goes along the Jambe usun which we crossed at a place, where it flows in three arms of a width of 21 , 140 and 42 feet respectively, while the water comes halfway up to the horses' knees. We then proceeded along a dry river bed to the SW for half-an-hour, whereupon the road again went in a $W$ direction and took us up an easy slope, the top of which we reached in $23 / 4$ hours. On the way we crossed a couple of dry river beds going in a $\mathrm{N}-\mathrm{S}$ direction. The sharply sloping banks of the Jambe usun and the other slopes and hills that we crossed, are all rather marshy. We crossed several morasses with red-brown soil
that contained iron. In front of us and slightly to the left was the snow-capped chain of the Kok-su mountains, from which we were separated by a succession of mountains, partly covered with grass, partly bare, with easy slopes. On the right we had the same hills, devoid of woods, but partly covered with grass. On the highest ridge of the slope we passed a Torgut praying site, decorated with sticks, bits of cloth, horns of mountain sheep, burkhuns etc. This hill forms the watershed between the Yulduz and the Kok-su. The road leads down to the Yavur Khargan usun, a tributary of the Kok-su.

At the praying site Numgan and I parted from the men with the pack-horses. After wandering upwards for a time I caught sight of two wild sheep at a spot where the hill dips and forms a kind of ravine of gravel and sand. The sheep caught sight of us at the same time and had begun to make off at an easy gallop. In a moment we had dismounted and taken cover. As I crept along and approached the edge of the ravine, the irresolute animals came into sight, stopping several times on the lookout for the monsters that had disappeared so suddenly. I fired two shots and brought down the larger one, an old male with large, heavy horns, the sad condition of whose coat showed that he had been through a good deal. I was delighted to see the splendid animal roll down the slope and we were not long in following it at a pace that might have proved fatal.

The Yavur Khargan usun flows from N to S here after describing a curve from the W . The mountains to the W of us, through which it flows, rise in a number of ledges and are very fantastic in shape. After sunset, in the dusk, you could imagine that you were among medieval castles, Gothic churches, walls of fortresses, cemeteries etc. 'They consist of a conglomeration of sand and stone. Streams of fallen stones had formed along all the crevices.

It is possible to reach Kurdai dawan from here over Sarry tur and Khurda dawan in 4 or 5 days and the road thence to Kok-su is said to be rough and stony. East of Khurda dawan droppings are used exclusively as fuel. Khurda dawan is open during JulySeptember.

Over Jambe dawan you reach the Dshirgalan in two days. Grass, water and fuel are available. The pass is only fit for horsemen. It is open from July to September.
fune 22nd. Yesterday was an exhausting day. We started at 5 a.m., and when I returned at 5 p.m.,
Camp at wet through to the waist after having to wade twice on slippery stones across the river,

Kavur Khar-
gan usun. which grew rapid towards evening, I was thoroughly tired. Numgan and I explored the mountains N and NW of our camp. Their innumerable gorges form a veritable labyrinth of mountain walls that take on the most amazing shapes owing to the influence of the water and storms, forming thousands of towers, walls, spires, windows, grottoes, clefts etc. In some places there is grass on the surface, growing in tufts among the small stones, in others the surface is bare and uneven, consisting of caked sand and stone, but frequently it is made up of loose masses of small fallen stones. The slightest weight is enough to set the outer layer in motion and occasionally you travel a considerable distance downward without having to move your feet. It goes without saying that climbing is no easy matter, yet it is easier here than in some places, for you can reach a considerable height on horseback
and the surface of the rocks is not so slippery as on the slopes of Aghias. I soon surprised Numgan by being the first to sight a flock of grazing goats, but the lie of the ground made it impossible for us to get any closer. I fired at 500 metres at the largest goat. My first shot stopped him and the second bowled him over. We could see him lie down, while the herd soon reached the crest of the mountain with graceful bounds and disappeared beyond it. I waited for a time to give him another shot, if he made any attempt to rise, but when his head also dropped on to the stones, Numgan declared that we had a tiring day before us and that we should pick him up on the way back.

When we returned towards evening, I discovered the goat through my glasses on the same spot, where we had left him. With much effort we climbed down into a deep, steep gorge and started up the other slope. As we drew near, however, the goat gained fresh strength and began to climb slowly away with obvious trouble. His slow pace was faster than the best we could do and the distance increased. Gasping for breath and with a pounding heart I had to shoot from such a steep wall of rock that it was almost impossible to stand without support. My vain efforts to hit him seemed to give him fresh life. When I almost dropped with fatigue, Numgan continued following and missing him. I lay for about an hour and rested at the foot of a fantastic tower and watched the mountains and hollows coming to life. The cackling and piping of the ugars blended with the quacking of the shining yellow geese or ducks. Up in the mountains some herds of kiyiks and goats, unseen hitherto, began to move about. They studied the new arrival from their inaccessible peaks, but all my attempts to get a shot at them proved vain.

It had grown dusk already, when I decided not to wait for Numgan, but return to the tents which were visible high up on the steeply sloping bank of the river Yavur Khargan. The river, greatly swollen towards evening, cast itself with a mighty roar in a sharp curve against the perpendicular side of the mountain. I was too tired to spend a couple of hours in scrambling up and down the steep mountain once more and decided to wade across the river and return to the tents along the opposite bank to a crevice in the ledge of the bank which afforded an opportunity of climbing it. The river roared with savage power, in the middle of the bed the water reached my armpits. Using my rifle as a staff, I simply fought for my life on the slippery boulders of the river bed and bitterly regretted my hesitation in crossing the mountain ridge. However, I succeeded in gaining my tent in the end, though there was not a dry stitch on me.

On returning to camp I had a visit from three Dungans from Qarashahr. For the last three years they had been washing gold with $\mathrm{I}_{5}$ other men in the Kok-su and other adjacent rivers. Their earnings are very small, especially as there is a great deal of water. All the rivers in this district are supposed to contain gold, the Kok-su in particular.

At nightfall Numgan returned with the head of my goat, a fine ibex had dropped from both my shots after a couple of hours' pursuit.

Last night there was a terrible storm with much rain which turned into a heavy snowstorm. Towards morning the men's tent gave way under the weight of the snow. The glass is falling, there are quite 0.3 m of snow and it continues to come down. It is provoking that although we have plenty of meat and other stores, we have to go without dinner. Our
supply of dry droppings will only suffice to boil our tea six times and it is impossible to collect any more now under the snow.

Fune 23 rd. The snow stopped this morning, but it is still cloudy and the wind has veered round to Camp at the N. There are 0.33 m of snow on the ground. Shooting is out of the question. The supply ravur Khar- of droppings will be exhausted to-morrow. We have been living on tea and rusks three times gan usun. a day. This morning Numgan rode out to try to find some bushes, but was uncertain whether he would reach them. Neither he nor the other Kalmuk will undertake to guide us from here until the snow melts. However, I must make the attempt to-morrow, for I have no time to spare.

I had intended to ride to the Jambe pass and draw a map of the highest reach of the river Yulduz which is indicated on the 40 verst map as coming from the Qaragai Tash dawan, but the snow prevented my doing so. A tributary of the Jambe usun or Yulduz comes from the Qaragai Tash dawan. It was dry at present, though there was plenty of water in the Jambe. Our camp was pitched on a tributary of the Kok-su, indicated on the map to the immediate $W$ of the Qaragai Tash dawan as coming from the Jambe. According to the Kalmuks no water runs from the Jambe to the Kok-su, but it comes from the Obyt dawan, a pass in the same mountains as the Jambe. This latter pass is between the Butun dawan in the E and the Obyt dawan in the W . All three lead to the Great Dshirgalan. The Jambe is the most accessible of them. The mountains on the W of our camp on the other side of the river are called Yavur Khargan and the pass to the E of us is called Qaragai Tash dawan, Yavur Khargan or Kok-su dawan. It is insignificant.

June 24th. There could be no doubt about the necessity of our leaving, for there was no sign in the
Camp at cold greyness of the morning of the thick snow beginning to melt. Under ordinary circumstances the W slope of the Qaragai Tash pass is easy. It is only stony for one or two short stretches. To-day, however, the horses had no easy task in making their way upwards through the 33 cm of crusted snow. From here we took the same road as I described on the outward journey. The snow was just as thick until the Jambe usun debouched into the valley. Here the snowstorm had only lasted half a day instead of a day and a half as in the mountains. It was so severe, however, that the Torguts had not seen anything like it for years. The losses they have suffered are all the more serious as the population in this part of the valley appears to be very poor. At the foot of almost every yurt we saw frozen sheep which the Torguts now consumed in most cases. They spoke of several yurts in which more than half the herds of sheep had perished and others had lost horses, cows and young camels. After riding for ten hours we halted at three Kalmuk yurts close to the bank of the Jambe usun. Here it is called Iksä usun which means mthe big river». The name seems almost ironical, for there was so little water that in the evening we were not able to fill an extra tea-kettle. Later in the summer, when the snow melts more rapidly in the mountains, there is enough water in the river to carry it to the marsh marked on the map. The beds of the rivers, dry at present, also help to raise the water in the Yulduz. With the exception of this time, when the snow melts, the bed of the Yulduz, about the middle
of its course through the valley, is dry for an appreciable distance. It draws a little water again from the springs in the marsh, but most of it comes from the Baga Yulduz. After receiving this water it forms a deep river under the name of Khaidik. Its $S$ bank is like the N bank, a gradual slope with a firm bottom and poor grass here and there, intersected by small water-channels, some of which are dry for the greater part of the year. Close to the river the ground is marshy. There are only a few dozen Kalmuk yurts on the S side of the river, probably owing to the bad communications between the banks, which are inaccessible or only reached with difficulty for a great distance in consequence of their marshiness, and are separated lower down by such a deep river that it cannot be forded. There is a ferry here built of boards brought from Zanma. It is used when necessary, but that happens seldom.

We reached the lama camp across the plain rather nearer the river than last time. The condition of the ground is the same as higher up. The actual marshy part begins further east. At the half distance we passed a large Torgut praying site on a small kurganlike hill. There are stones on the surface, but in the openings of the rodents' holes you see nothing but earth. SSW of the lama camp we saw a similar praying site at a distance of a mile to a mile and a half, also apparently on an old kurgan. Two merchants live at Kura, a Chinese from Qarashahr, who lives here in the summer and sells various odds and ends, and a Sart, who accompanies the Torguts on all their peregrinations throughout the year and supplies them with necessaries at high prices. The Chinese keeps a choice little exhibition of cheap goods in his green tent.

I had a long talk with the superior of the lamasery, who was interested to hear of the position of the Kalmuks in Russia. Both he and a couple of other lamas seemed to be keen that someone should visit their kinsmen on the banks of the Volga. They doubted, whether the Russian authorities would allow a Chinese Kalmuk to pass without trouble and also thought that the Khan would not agree to such a journey. Their submission to the Khan, a young prince under the control of Chinese officials, is astonishing. It looks as if the Torguts could not move a step without his permission.

The Kalmuks seem to be distrustful and their hospitality cannot be compared with the hospitality of the Kalmuks and Kirghiz in the Tekes and Kunges valleys. They submit most unwillingly to anthropological measurements and it is hard to extract any information from them. Their filth defies description and can compete successfully with that of the Kalmuks in the Tekes valley. They are taller, but have no semblance of elegance or harmony in their figures and movements. Their feet are often misshapen with twisted toes. You seldom see a well-shaped hand. Their hair is black or dark brown, their beards often being a shade lighter. Their beards are scraggy and begin to grow late. Up to the age of 25 or 30 their moustaches are scarcely visible. There is seldom any hair on their bodies except in the armpits and groin. They do not use razors; their beards are plucked with broad pincers. Their hair is treated like that of the Chinese - the lamas cut it. You seldom see anyone with grey hair and I saw none with white. They rarely reach the age of 70 . Their noses are mostly small and well-shaped. Their eyelids are fleshy and as though turned

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inwards. The caruncle in young persons is mostly slightly covered; strange to say, you seldom sec this in older people. Their chins are pointed, so that their heads, which are frequently broad, form a triangle with the point at the bottom. Their cheekbones are very prominent and the bones of their temples sunken. Their mouths protrude slightly. Their condition is good without any undue inclination to stoutness. I noticed men with large stomachs only among the lamas. The movements of the Kalmuks are clumsy and slow. There is something lazy and coarse in their nature. They gesticulate sometimes, when talking, but the gestures, too, are slow and devoid of liveliness. They seem fairly good-humoured and not disinclined to laugh, but their great source of joy seems to be the brandy they make of airan.

Their food consists of milk, airan, tea into which they put flour sometimes, and meat, when they can get it. The Kalmuks are not squeamish - potato peel, morsels of meat and bad food that the cook has thrown away, are picked up and devoured by them. They cat their principal meal in the evening just before going to sleep. Their appetites are splendid. A Kalmuk can drink any number of cups of tea and airan and is capable, I believe, of disposing of a whole lamb at a meal by himself. The kettle is not washed, when cmptied, but after being put on the fire for a fresh boil. After rinsing, the water is removed with a ladle, so far as possible. Vegetables never seem to be used for soup, and flour very rarely. At parting, the superior of the lamasery gave me his blessing and a little burkhun image very much the worse for wear.

June 26th. We returned to the Khan's camp to-day in a straight line across the plains from Kura.
Campat On the last bit, where the road leads over the hills SW of Bain Bulaq, we crossed some Bain Bulaq. marshy hollows. In several places we had to make détours to avoid morasses. It was a sunny day and very hot. There are great changes in temperature in the Yulduz valley. The nights are cold, often below freezing point. Last night we had $-7^{\circ} \mathrm{C}$. In the afternoon it is fine, but if there is a slight wind and a few clouds, the cold again becomes penetrating. Storms occur almost daily, frequently accompanied by rain. The ground must possess rare powers of absorption, for to-day many of the water-channels in which there were about 15 cm of water recently, are quite dry. The camp is preparing for two days of prayer, during which prayers will be offered to the burkhuns for fine weather for the cattle. Two yurts have been put up on the mountain in the $S$ at the Kalmuk praying site with its poles and trophies. The lamas are holding a service there just now. The sounds of their music can be heard in our tent in the quiet night.

Kalmuk women give birth to their children in a kneeling position, other women assisting, if necessary. No men are allowed to be present in the yurt. On the fifth day a lama comes and says some prayers over the newborn infant and over the water in which it is to be washed for the first time. The lama and the assembled guests are offered refreshments. The child is washed later in the evening in warm water taken out of the kettle, in which the meat or soup has been boiling.
'The extent of the taxes is fixed entirely by the Khan and is supposed to cover his expenses. The owner of roo sheep, for instance, is said to pay about io lan, which should represent $3-5$ per cent of his capital (a two-year old sheep costs 3 lan here).

To-day 1 met an old lama of venerable appearance at a Kuzda's. We spoke again about the flight of the Torguts from Russia. He was well acquainted with the fact, but could give me no details. He said that a book about these events had been lost during the revolt of the Dungans. The Torguts suffered very great material losses during the revolt. The old men questioned me closely about the Kalmuks at Astrakhan, about their financial position and so on. When I spoke of the fertility of the Volga district, their smiles showed some doubl. They seem very suspicious and are extremely reserved. To obtain any information, often of quite an insignificant kind, you are sent from pillar to post until there is no other resort but the Khan.

I had the luck to find a human skull in the plain to-day. It was very well preserved except for the teeth and lower jaw which had dropped off. It is curious that during these weeks of travelling through districts inhabited by Kalmuks this is the first skull I have come across. -- The distance from Kura to Bain Bulaq is $25-26$ miles (quite 7 hours on an ambler).

Owing to the illness of the Khan's mother the solemn day of prayer had to be postponed. I rather suspect that her illness was an excuse for avoiding my presence. However, she granted me a parting audience in the same rich yurt as before. In view of her illness the dayJune 27th light was carefully excluded and the yurt was in semi-darkness. The number of officials standing at the door was larger than last time. Most of them had come to attend the day of prayer, and I noticed several with fine figures and features. To show my sympathy I gave the Khan's mother some photos, a pot of quinine and instructions for its use. She must have been touched by my modest gift, for she sent me a very good ambler in return.

Such a day of prayer as the one that was to have been held, is a great occasion among the Kalmuks. They assemble from far and near, dressed in their best. The lamas, especially, in their red garb, look very decorative. Three horses and a couple of dozen sheep had been slaughtered for the occasion. Besides these religious festivals, races and wrestling matches are arranged sometimes like those I saw among the Kirghiz in the Allai valley. About 50 youngsters compete.

Five sumuns are encamped west of the Khan's camp towards Qaragai Tash. To the south there are four. The other 45 are spread eastward towards Qarashahr. A sumun varies in size from 25 to 200 yurts owing to the division having been made very long ago and the fluctuations in the different sumuns having been very uneven. The total number of the Torguts is probably about 3000 yurts. No less than about rooo yurts belong to the lamas.

We left this morning for Qarashahr, the baggage being loaded on five camels in order June 28 \& to spare our horses as long as possible. Numgan left at the same time for his home in Campat the Tekes valley. He promised to send the heads of the animals I had shot to Qulja in Artstan the autumn and get them forwarded by the Nadejda Company to Helsingfors with the help shever(ma of the Russian consul. I was sorry to see the old fellow pack up his small tent and mount his horse. Besides being an excellent huntsman his thoughtfulness and experience make him a valuable companion on such trips in the mountains.

The road leads in a decidedly easterly direction on leaving the Bain Bulaq camp and runs up the broad valley of the Baga Yulduz. Behind us in the $S$ was the Bain Bulaq mountain, on the top of which the Kalmuk praying site rose like a tuft. On the right across the river lies Sydrul, a huge mountain range enclosed by the Baga and Ikhe Yulduz in the N, E and S. A triangular, snow-capped peak, Shovgurul, rises from it above the rest. Through the gap between the Bain Bulaq and Sydrul mountains, at the place where the river divides them, you see in the far distance a large, whiteclad mountain range that bounds the Ikhe Yulduz valley in the S . Our old friend, the range over which the Dagit dawan led us, rises on the left. Here the mountain ridge is called Narnbel ul. In the NE it divides and forms a considerable gorge, Tsakurtan Kharsalan gol, from which there is a stony river bed, dry at present, that crosses the road about $21 / 2$ miles from the camp. Immediately to the N of it we crossed some marshy patches. The ground ascended imperceptibly, though its gradual fall eastward to the Baga Yulduz was easily noticeable. The latter river flows $2 / 3$ - 1 mile $E$ of the road, but is invisible. About a mile on the other side of the Tsakurtan Kharsalan usun are the first yurts that indicate the edge of the river bed on the right. A mile to a mile and a half further on the river comes into view about $2 / 3$ of a mile from the road, winding in an arm fully 150 feet wide with a slow current. The road runs close to the edge of the bank, from which you obtain a good view of the river and the meadows near it, lush but evidently rather marshy. Here and there you see some grazing herds of horses or cattle. The animals are few in number and lean, but some of the horses are well built and strong. The yurts form groups of 3-4 along either side of the river. Above the bank the grass is very bad, if possible even worse than in the Ikhe Yulduz valley.

The road gradually approached Narnbel ul which was now no more than i-I I/3 mile distant. We crossed its eastern spur, some small hills that extended as far as the road. The Sydrul mountains receded from the river that comes from the east and curves round a group of hills projecting from Sydrul in the form of a separate spur. These are called the Kharnurin Tolga mountain. For about two miles we rode quite close to the river round these projecting hills. Narnbel ul in the W had again receded and opposite the Kharnurin Tolga mountain there is an open quadrangle of about two miles, shut in by mountains on three sides. The mountains in the background, i.e. to the N , appear to be the lowest. In the NW corner of the quadrangle a wide gorge opens, from which a small water-channel, Nartuyn usun, dry at present, issues. The road to Narat dawan goes up this gorge. It is said to be less steep than Dagit, but more difficult owing to a great number of marshy places in the gorges on either side of the pass. This year the pass is not yet open owing to the unusual depth of the snow. Here the banks of the river begin to grow marshy. The road creeps along close to the foot of Köktulga ul, the continuation of Narnbel ul, and proceeds due E. The Kharnurin Tolga mountain joins Sydrul again, the latter now being called Irbyng ul. Between the river and these mountains the ground goes in mounds and hillocks on which there is little or no grass. At a distance we could see marshy places between the mounds.

We soon lost sight of the river and continued along the foot of the mountain on the left. We crossed the beds of two rivers, Artsan usun, the water in one being 20 feet wide, the
depth 20 cm and the current slow; the other was dry. They flow southward from a gorge of the same name. Further on we crossed two other dry beds and immediately after encamped next to four Kalmuk yurts on the bank of a broad, dry bed which is also called Artsan usun. Immediately to the E of the yurts a morass begins, Artsan shevyr.

A fine old lama of 78 was so kind as to give up his yurt, as clean and neat as a toy, to me. He and a zangi were the oldest of the Torguts. The occupants of the yurts were hospitable and friendly. It was pleasanter here than in the ncourtly atmosphere with which both the Bain Bulaq camp and the Kura on the Ikhe Yulduz were impregnated. It was quite amusing to find at the ncourt" of the Khan such a number of smooth-tongued, smirking and flattering courtiers, whose whole interest centred round the Khan's person and family. The mould in which many of them were cast must be familiar to many greater oriental courts.

This morning we went on eastward with the Artstanadryken ul on our left $11 / 2$ to 2 June 2gth. miles from the road. On the right of the road the ground is marshy with large patches Campat of standing water. Now and then we caught a glimpse of the river winding among low mounds in the almost barren plain. The Irbyng ul runs in an unbroken chain far to the $S$. shevyr. The marshy ground approached closer and closer to the mountains in the N and forced us once more against their foot. After riding for 9 or 10 miles we got to a place where the morass comes right up to the foot of the steeply sloping mountain. The bottom, however, was fairly firm on the patches of standing water that we had to cross. Between them the soil was covered with small, sharp-edged stones from the mountain. A river, Tsaganaryng Kharum usun, about $\mathrm{I}_{5}$ feet in width, flows immediately on the right of the road. At the spot, where the mountain on the left which was now called Zälem tusna tsagan ul, turned in a NE direction, we crossed a river, Khaptkhan usun, about 20 feet wide, at a place where it widens into a small fen about $35^{\circ}$ yards wide. Its greatest depth does not exceed 0.4 m and the bottom is fairly firm. The mountain turns in a N and even a NW direction, leading to the entrance of the gorge of the Adunkur pass. Thence it is continued in an $\mathbf{E}$ direction at a distance of several miles from our road by Adunkurin Ulan Shugurin ul, an imposing mountain range with beautiful, snowcapped peaks. Some distance $E$ of the Adunkur gorge we could see another, by which you enter the valley of the river Alanas over the three Kelde passes (Ulsta, Dunde and Zakh Kelde). Ulsta and Zakh Kelde are said to be steep. There are some marshy places. The road now led over a high plain, open in all directions for several miles. In the SE at a distance of some miles a new group of mountains was visible, its peaks also being enveloped in snow. It is encircled by the rivers Sagasutai and Baga Yulduz. In the ENE, where it combines with the Adunkurin Ulan Shugurin ul, in the distance, the mountains seem to be low - probably the effect of the great distance, for there is said to be no exit there from this enormous cauldron surrounded by mountains. The ground on this plain is dry and firm. There is little grass. We saw no signs of marshiness from the road. Groups of yurts appeared again in the S a mile or two from the road. They had ceased entirely just $E$ of our last camping place. We crossed two dry watercourses coming from the Adunkur pass and two others known by the name of Olasta usun. Immediately after crossing the second river coming from the Adunkur gorge there is a kur-
gan of earth, about 7 feet high and 76 paces in diameter, on the right about $1 / 3$ of a mile from the road. A circle of stones partly surrounds the mound. It is about 124 paces in diameter. A mile or two further E the ground again became marshy on the right of the road and remained so up to our next camp, another three miles further.

I was again put up by a hospitable lama and admired the huge appetite with which he devoured large quantities of meat and „lapsha" (soup and flour). The lamas represent onethird of the Torgut tribe, but it can confidently be sta! ed that quite two-thirds of all the tribe produces finds its way into the stomachs of these idlers. They often live in the mauls", but have no cattle of their own, being supplied with what they require by the Kur to which they belong. Women are not allowed to enter the Gur except to pray, and the lamas are supposed to lead a life of complete celibacy. I came across a large yurt belonging to the widow of a Torgut, who had died about a year before. It was occupied by the widow and a well-fed lama and there was a baby lying on the bed, doubtless a gift of the burkhuns.

All the older Torguts complain of the losses suffered by the people during the Dungan revolt. Peaceful conditions were not established until the Russians had occupied Qulja. The people give the impression of being exceedingly peaceful and careful. There is not a trace of military organisation. Rifles are a rarity. Those I saw were old flint-locks with long barrels, provided with a support in front. There are probably not a dozen breechloaders (mostly Berdan) of old types in all the yurts. The owners' names are given. -There is little game-shooting, consisting mostly in lying in wait for the game. You may see a Torgut lying patiently for hours with his rifle aimed at the entrance of a rodent's hole, waiting for the occupant to appear. The meat of the rodents is eaten quite generally.

June both. Camp at the mouth of the

## Borgustai

gorge.

The road to-day led across the same plain as yesterday. On the right was a swamp not far from the road which runs along dry ground. We soon crossed a dry watercourse under the name of Kelden usu and about $21 / 2$ miles further four parallel arms of the Zakh Kelden usun, also without any water. On the right we caught sight of some "aus" in the distance, several consisting of 8 -io yurts. One of them is a lamasery Kur, but much smaller than the one I visited on the Ike Yulduz. After covering another $2 \mathrm{I} / 2 \mathrm{miles}$ we reached the Sagasutai before which there were two small, dry watercourses. The Sagasutai itself flows in two arms here, the larger being 15 feet wide and 0.4 m deep, while the current is $4 / 5 \mathrm{~m}$. The bottom consists of gravel. The other arm is rather smaller. The water is perfectly clear and white. We rode about 6 miles on the other side of the river before we reached the first small spurs of the mountains that had wedged themselves between the Baga Yulduz and the latter river. The mountain range that looked so imposing at a distance comes up to the Baga Yulduz in a chain of small hills, the slopes of which are crossed by the road. At the place where it first leads up to these hills, we passed a Kalmuk praying site on the right called Bajang Khoshuna usur. Next to it are the remains of a group of the constantly recurring circles or heaps of stones. For a time the Baga Yulduz remained close to the road at the foot of the slopes. It seems to come from a morass in a sligh ly more southern direction than the road which still continued almost due E . The mountain range along which we proseeded is here called Säkhen Putin adryk ul. For barely six miles the road again runs at
some distance from the Baga Yulduz, though the river is often seen in the marshy ground winding in innumerable curves. We crossed a river bed, Ulasta usun, coming from a gorge in the N . The ground now changed to pure sand. When we rejoined the Baga Yulduz after passing a boggy stretch on the right, it flowed NW, pressing against a high sandbank, along the slope of which we rode. Considerable mountains projected from the NNW, coming right up to the sandhill, round the slope of which the road curved and then continued eastward at the foot of the mountains that had now come up to it. About $21 / 2$ miles $E$ of the place at which we left the Baga Yulduz, we saw, downwards from the plain, two Tibetan prayers picked out in stones in gigantic letters on the green slope. It scemed to be the same inscription that I had copied from the wall of rock at Kok-su, where it had probably been carved by some bigoted lama. Steady rain prevented my photographing the inscription either that day or on the following morning. In any case it would not have been easy on account of its size. Prayers are offered here annually in the presence of the Khan himself. A mile or two further on, at the mouth of the river Borgustai (or Burusta in the Kalmuk language), we came across three Kalmuk families that had just come from the mountains for the summer. They had not yet put up their yurts, having only raised the roofs to protect themselves from the rain and wind. They lent us one of the roofs, which we accepted gratefully. Over in hours' riding in the wind and rain had exhausted us, so that we went to bed after getting some tea and milk from the Kalmuks, and Izmail Ahun was spared the necessity of making soup. - At the outlet of the river from the mountains there are remains of the small stone cairns that I have described, on the right bank.

During the night one of the camels had gone astray and the Kalmuks did not find the deserter before midday. We had plenty of time to boil our soup and make up for yesterday's fast. The weather had not improved and we started from the gorge of the Borgustai usun, in pouring rain and a bitterly cold wind. We crossed the river at a place where it is 35 feet wide and 0.5 m deep with a stony bottom. For a mile or two the road goes ESE and then again takes an $E$ direction. In the $S$, about opposite the Borgustai gorge, we saw a broad, fan-shaped watercourse flowing from a gap in the mountains on the other side of the Baga Yulduz. It is called Itelikte usun. Where the road turns from ESE to E, it runs for about $2 / 3$ of a mile quite close to the Baga Yulduz which comes from the other side of the valley, forms a curve and touches the foot of the mountains, only to recede again slightly. Here we saw a couple of groups of yurts. The valley grows perceptibly narrower and the grass improves. After three miles we reached the slope of the hills that had been running parallel to the road for some time at a distance of about $1 / 3$ of a mile. We continued in the same direction, ascending constantly. Hills arose on the right in an ENE-WSW direction between the road and the Baga Yulduz, at first only slight, but gradually growing higher and soon hiding the river and its valley that was now comparatively narrow. During our gradual and by no means steep ascent we crossed four narrow watercourses running at a distance of a mile or two from each other. On the fourth, Sharga Myrni usun, we encamped. It was hard to believe that after such an easy ascent we had already reached Körl dawan. Water boiled at $+89.86^{\circ}$ and the aneroid indicated 524.50 . The mountain rises to the N of us,
but to the S the slope runs into the hills that had wedged themselves between the Zaga Yulduz and the mountains. The wind had become a gale and the men suffered during the night, their tent-poles having been blown down. The cold was piercing, although the lowest temperature during the night was not below $+1.4^{2}$. - On the Russian $f 0$ verst map there are two rivers called Borgustai. The westerly river is probably the one my guide called Ulasta usun.

July 2nd.
Camp at
Gultishim amna shevyr. a pass. Between this hill, known as Tsurin Kedrer ul, and the mountain to the N , which is here called Kotlen Khara indir ul, a gorge is formed, at the bottom of which the Chaptchka usun takes its source. At the entrance to the gorge we could see Chakhryn dawan to the SSW and Chargaty dawan to the SW. The road makes innumerable curves. Next to the murmuring water a line of small bushes was growing, the first we had seen since leaving the river Panma. The road kept shifting all the time from one stony slope to the other. The bed of the river was full of stones. The descent into the water was often difficult for the horses, who were incessantly tormented by the rough, stony ground. The gorge was quite narrow and the mountains not particularly high. For three or four miles the course was easterly or NE until the junction of the river with a tributary from the NW, Tulätang usun. The river gorge widened slightly. The river was $3^{8}$ feet wide at this place with a stony bottom, 0.5 m deep, and the current swift. In all more or less open places there were traces of the Kalmuks' sojourn during the winter - stone fences for the cattle, quantities of dry droppings etc. It is inconceivable what their cattle live on in the winter, however little they require. The grass among the stones is unbelievably meagre.

About 2 I/2 miles below the afflux of the Tulätang usun the bushes growing on the edge of the water were replaced by trees that spread out slightly to the sides at times. The course of the river changed to ESE and soon to SE. On the left we passed a gorge, Kitang gol, that supplied a little water to the river from the N . The mountains, often with a high ledge close to the river, became much higher. Those on the left were called Sarty '「enasko ul.

We passed a Kalmuk praying site on the right. On the left, on a high, steep ledge of the bank, lie the ruins of a small fort - parts of an earthen wall. Presently we passed another praying site on the right and a few miles further on two gorges, the mouths of which faced each other, Gurtö gol to the N and Tsurin Kedren gol to the S, each with a small watercourse. We met a couple of Kalmuk families moving westward with their miserably lean cattle, horses, cows and sheep. Just after passing the Ulan Zeckten gol gorge on the right the valley widens considerably and forms an open, flat space, 300 yards wide, with a little grass growing on it. In the N the Gultishim amna shevyr gorge opens up. We encamped not far from it. The distance covered to-day was not more than 18 (?) miles, but very exhausting for both men and beasts. I spent no less than II I/2 hours in mapping.

The river continues its course to the SW, tightly enclosed by two steep mountain walls. July grd. The road winds from one bank to the other. The ground consists of nothing but stones of all Campat sizes. The meagre grass ceases altogether. The trees continue close to the watercourse. Khuragin After two miles the gorge grows wider again. There are rather more trees, but no sign amyn. of grass. The gorge goes on, often in a $S$ direction. At times it widens and forms a narrow, stony valley separated from the next open space by a narrow neck. There, are traces everywhere of the Kalmuks' winter quarters. On the left there are a couple of gorges at a distance of two miles from each other, Tegneten Sala shevyr and Guriäng gol. A mile or two further on there is a third, Umnu Gyrin amna shevyr. The gorge, which had for some miles gone in a decidedly southern direction, now turned SW again and became distinctly wider for a considerable distance. The trees formed groves which interfered with my mapping, but the ground was still as stony as before and the total absence of grass made the position troublesome. This comparatively broad valley is called Uom. In the $W$ it seems at a distance of several miles to be bounded by projecting mountain ranges. Opposite a Kalmuk praying site at the foot of the mountains on the right a large gorge, Balganta gol, opens on the opposite bank. The gorge turns S and again grows narrower. The road creeps along galleries blasted in the mountain along its steep side, often high above the roaring river. A great deal of work has been done in making these galleries. We had to dismount frequently and lead our horses along the slippery rocks, but without this blasting it would have been impossible to advance.

A ride of about $3 \mathrm{I} / 2$ miles in a $S$ direction brought us to a spot, where two bridges had been thrown across the river of the same kind as the Kok-su bridge, but very decayed. The road divides here and runs on both sides of the river. Here we met a representative of the firm of Musabayeff in Qulja on his way to Yulduz with brick tea. This firm does most of the trade with the Torguts and has a turnover of about 30,000 roubles a year. Some heavy flint-locks were laden on one of the pack-horses. The Torguts buy them at 20 lan a piece.

We crossed the river which had become considerably larger, possibly to some extent owing to the rain. At our last camp it was 45 feet wide and 0.45 m deep. Here it was 105 feet wide and the water came up to the horses' bellies. The bottom is stony. On the opposite bank the road went on running high up the mountain sides, while ours ran mostly close to the river bed. My tent stands two miles further on in a grove between two gorges, Jumbutin amyn on the right bank and Khuragin amyn on the left. Part of Musabayeff's tea caravan camped next to us. The Qarakesh, a lively Sart from Oschär, generously presented me with 14 hard, small, wheaten loaves. They gave us great pleasure after eating rusks for two months. My poor skeletons of horses wandered about like shadows, unable to find a blade of grass to appease their hunger.

This inhospitable gorge seems to be unending. We covered mile after mile and at every July ${ }_{4}$ th fresh turn walls of rock rose up and prevented our seeing more than a mile or so before us. Campat Our exhausted and starving horses required more and more spurring to advance over this Tsagan stony ground. All their hooves were tender, but my new horses from the Tekes and Yulduz Tungan.
valleys in particular, being unshod, moved with great difficulty. For 1 1/2-2 miles the gorge goes in a SSW direction, then for about the same distance SSE and again SSW up to its mouth. Approximately on a level with the second turning a gorge, Ikhne Yambotö usun, opens in the right wall. Halfway between it and the mouth of the gorge we passed a Kalmuk praying site consisting of a large block of stone covered with smaller stones. Goats and human figures were roughly carved on one side of the block. They were apparently very ancient.

We heaved a sigh of relief, when, after riding about II miles, we turned $S$ and at last saw no mountains between us and the plain in the south. Izmail and my Mohammedan yigit each dropped a coin at a Kalmuk praying site in their joy at getting away from this horrible ground at length. We crossed the river twice here and then took a SE course that led us away from it. At its outlet from the mountains it is 140 feet wide and 0.6 m deep. The ground we rode over was gravel and stone, still without any grass. On leaving the gorge we also left the wind behind us. The sun was scorching and even the stones seemed to generate heat. For another $3 \mathrm{I} / 2$ miles we still had mountains on our left, though they grew less by degrees and finally changed into a high terrace-shaped ledge of gravel that accompanied us for about the same distance. About 2 I/2 miles from the mouth of the gorge we crossed a small arm of the river that wound murmuring between the gravel and stone. Bushes and some miserable trees grew along its banks. By the edge of the water there was a strip of luscious grass which our horses devoured greedily. It was getting late, however, and we had to push on to our camping place next to some Kalmuk yurts 3-4 miles further on. They were inhabited by some Torguts engaged in farming and were situated on the river Tsagan Tungan usun, 30 feet wide and 0.4 m deep, an arm of the Chaptchka usun. About 300 Torgut yurts till the land in the neighbourhood of Qarashahr. They use Sart ploughs and in the way of cattle they keep only what is essential for cartage and a few cows for milking. For this reason the other Torguts look upon them as poor creatures. They look fairly prosperous, however. The land yields a $6-7$ fold crop. Only wheat is grown. Grass appears I I/2-2 miles before reaching the Tsagan Tungan usun. It is tall, grows in tufts and is very coarse.

July $5^{\text {th }}$. We started early this morning in order, if possible, to cover the $30-33$ miles to Qarashahr Qarashahr. in one stretch. The direction is SSE the whole way. The ground was gravel with coarse grass growing in tufts, much of it last year's. The horses moved forward very unwillingly owing to their tender hooves and their exhaustion after the exertions of the last few days. We crossed a small stream flowing southward and rode across a slight rise in the ground in an ENE-WSW direction. Having ridden six miles, we reached the village of Vangjafu with 20 houses. The gravel was now succeeded by löss, cultivated here and there. Two of my horses were unable to get as far as this and had dropped a few miles back. I left a yigit in the village with orders to carry water to them and try to get them to the town next day. We went on over the same plain, riding for a time along a small stream. The grass was very tall and coarse, often almost bushy. Here and there a couple of low trees indicated the presence of a rivulet or stream. The road was trodden hard and was
good. The ground on both sides was saliferous and so porous that the horses broke through it to a considerable depth and could only advance with great difficulty. An enormous mountain range (not marked on the Russian 40 verst map) was still visible at a great distance to the south during the early part of the day.

Scarcely seven miles before Qarashahr we passed through the village of Taipintchy with 9 houses inhabited by Dungans. We stopped at a house and had some cold tea, a couple of eggs and a Chinese loaf baked of musty flour. It is only after two months' travel in the mountains in the cold, wind and rain, with no other food than rusks and mutton, that I have learnt to rate the blessings of civilisation at their true value. The eggs that the Dungan woman boiled for me and her musty bread tasted better than the most delicate dish. It was a pleasure to ride through tilled fields and populated districts. A cackling hen and its chickens gave me as much pleasure as a field of poppies with its charming colours. The clay huts of the Dungans and Sarts, their shaking and creaking arbahs, all seemed to be enviable luxury. How much more effeminate life and circumstances had made the people of the fertile plain than the nomads in the mountains, devoid of all comfort.

The regular wall of the Chinese fortress came into sight a good distance before we reached Qarashahr. The Mohammedan town is a village-like conglomeration of houses without any town wall. The main street is about $1 / 4$ of a mile in length. The shops are situated on it and on a side-street parallel to it, and here the bazaar is held, though it is insignificant. The site is beautiful on the bank of the Khaidyk gol, 2/3-1 mile wide at this place. Only the backs of a few houses, however, face the river. A Chinese temple, dedicated to the river god, stands on the bank, the entrance facing the river, from which it is protected by the traditional wall that keeps out evil spirits. We put up at a sarai a stone's throw from the river, the water helping to temper the intense heat.

The district of Qarashahr is large in area, but insignificant as regards population and resources. A Fuguan is resident in the town with a Tsouguan in the town of Korla and a Shenguan in both Bugur Tcharkhalyk and Lop Nor. Besides the agricultural population, consisting of Dungans, Sarts and Kalmuks in Qarashahr, Sarts in Korla, Tcharkhalyk and Lop Nor, his acitivities extend to the Torguts in Yulduz and the Khoshuts. The latter are governed by their Khan and Beise respectively and at the same time belong to the administrative district of the Dzian Dziun at Ili, while legal matters are dealt with by the Fuguan at Qarashahr, when the crimes are beyond the competency of the Khan and Beise, i.e., are liable to heavier punishment than flogging. A number of Torguts and Khoshuts are stationed in the town to adjust any misunderstandings that might arise with the Kalmuks who live there. Both tribes are exempt from taxation and military service. During the Dungan revolt about 800 (according to other versions 300) Torguts and 200 Khoshuts were conscripted to recapture the province. Since then no soldiers have been called up. Nevertheless, the people seem to think it quite natural that the Chinese should conscript men in case of war. The Khan receives 2500 lan yearly and the Beise 500 as a subsidy from the Emperor. For their part they make a gift of a few horses annually to the Dzian Dziun. They are bound (at any rate the Khan) to make a journey to Peiping and serve


## QARASHAHR

Qarashahr lies in an open plain exposed on all sides except the $S$ and $S W$, where the Sart bazaar adjoins it and $S$ of which the Khaidyk gol flows. The wall is 500 paces along each front, of unbaked bricks, about $31 / 2$ fathoms high with a crenellated parapet. The projections at the corners and in the middle of the walls are slight and have buildings on the ramparts. 3 gates to the $\mathrm{S}, \mathrm{E}$ and N are used; the W gate is closed. Gate projection of baked bricks, 12 yds at the base. Only a single wooden door bound with iron. No fosse and no protected area outside the wall. Inside, a street with houses at intervals; in the NW corner the mandarin's yamen; the infantry ljanza close to the E gate. Many empty spaces. - All the single houses outside are inconsiderable and surrounded by groves of trees. With the exception of them the ground is level and intersected by ariqs, deep and with embankments. - Drawn by the author.
for a time with the Emperor, who sends them home with costly presents. The Khoshuts are divided into 10 sumuns. The number of yurts in a sumun appears to vary. Altogether there are about 700 yurts. In a material sense they seem to be no better off than the Torguts, rather the reverse; at all events they speak of the latter with some respect. The Beise himself does not appear to own more than 150 horses and no one possesses much property. As regards the prosperity of the Torguts my impressions do not agree at all with the reputation they enjoy both here and elsewhere. I visited about 150 yurts and enquired in each about the material position of the owner, and in no case was it brilliant. The level of prosperity seems to be inferior to that of the Kalmuks and the Kirghiz in the Tekes and Kunges valleys. Strange to say, they too have the reputation in Qarashahr of being well off, not to say rich. The most prosperous Torguts are said to accompany the Khan on his journey to Peiping.

As regards the size of the population I should place it at not more than 3000 yurts. The mandarin, on the other hand, stated it to be ro,ooo. The local administration is entrusted to a large number of officials, either badly paid or not paid at all. In each sumun

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there is a zangi and his deputy, a kundö. Five zangis are subordinated to a zalyng The district of a kuzda and his deputy, a merin, includes two zalyngs. Their duties consist in collecting taxes and acting as judges. Whenever a case of slightly graver importance occurs, it is referred from one official to another until it reaches the Khan. The complete want of independence and unbounded submission to the officials among the Torguts is astonishing. The celebrated freedom of the nomads is strictly limited here. The zangi is elected by the yurts of the sumun and his election is confirmed by the Khan. A zalyng is paid 3-6 lan yearly, a kuzda $12-20$. These salaries are paid by the Khan. The population is apparently not taxed by these modest officials. It has, however, to pay the Khan a very considerable annual tax. The poorest yurts, i.e. those not possessing more cattle than is necessary for domestic needs, pay $11 / 2$ lan yearly. Wealthier ones pay 200 lan for 100 cows, 20 lan for 10 cows and so on. A horse or 20 sheep are considered equal to a cow. In other words, they are taxed far more heavily than the Kirghiz in the Tekes valley. All taxes are paid in cash. Like the Torguts, a small number of Khoshut yurts in the neighbourhood of Qarashahr till the land.

In Qarashahr there are no begs, but Shang-ja, as in China, one for the Sarts, one for the Dungans, one for the Chinese and one for the Kalmuks. The soil is very salty. A 6-7 fold yield can be regarded as the average. Trade is done mostly in Russian goods, some in Chinese and very little in Indian. Qarashahr has a great reputation for its horses, especially Torgut horses which are called Qarashahr horses and fetch prices up to several hundred lan, and for the leather produced by Chinese and Dungans. In Korla there are 4 begs (with a senior beg) with $6-700$ houses of $5-6$ people each. The land may be divided into three categories of approximately equal size, giving an $8-10,6-7$ and $4-5$ fold yield. Trade is much livelier than in Qarashahr. More than half the merchandise is of Russian origin; there are some Chinese goods, and an insignificant quantity of Indian. Many Russian subjects (Sarts) carry on trade there. In Bugur there are 4 begs (besides a senior beg) with about 500 houses each. The land gives an $8-9$ fold yield. Trade consists of the same goods as in Korla. Tchakharlyk has 4 begs (and a senior beg) with $50-60$ houses of 4 persons each. The soil is said to be good, but there is a shortage of water. About half the land gives up to a ro fold yield, while the other half does not yield more than $6-7$ fold The quantity of cattle is comparatively large, but some seed is bought annually from Korla

In Lop Nor there is a beg and a Shang-ja in each of the 9 villages of the district. The population increases annually, principally by Sarts immigrating from the Khotan and Keriya districts. Chinese apparently only act as merchants. There is no mention of Chinese settlement. The land gives a $4-7$ fold yield. Cattle are plentiful and there is much fishing.

The communications are said to be comparatively good. You can reach Tchakharlyk in 15 days in an arbah. Water, grass and fuel are obtainable. Two horse-roads lead from Lop Nor to Tun-huang. The southern road is mountainous and is used in the summer. The northern road runs across the plain and is used in winter. The journey takes $20-25$ days, during 3-4 of which the water supply is bad. In general there is said to be little water on this route. It is drawn from small springs, but is said to be sufficient for a caravan of 300 horses.

July rith. To-day I made an excursion to a ruin on the road from Korla to Qarashahr, about Qarashahr. 10 miles from the latter. We passed the Khaidik gol in a barge about $2 / 3$ of a mile east of the Sart bazaar. Here the river is not more than about $\mathrm{I} / 4$ of a mile wide. The fairly lively traffic is maintained by several ferries worked by Kalmuks and Dungans. The current is slow and the greatest depth is 7 feet. On the other side of the river we rode through Hosjuju mähällä, a village inhabited mostly by Dungans from Sinin. They seem to use reeds as a building material. A good many outhouses are built of reeds standing on end and held together by a layer of clay laid on on both sides. The plain across which the road leads, contains much salt and is porous, but the grass is much better than to the N of Qarashahr. We passed a lonely farm on the right.

The very considerable earthen wall of the ruin is visible a mile or two before you reach it. It lies on the left of the road at a distance of about a mile. Close to it we passed the yurts of some Kalmuks, engaged in tilling the land. The wall is well preserved and is continuous with clear projections in the middle of two of the walls. On one of the others the projection is indistinct and on the fourth it is invisible. It is about $20-30$ feet high and measures about 55 feet in width at the base. A rampart built on top of it is only visible

in places. The double lines along the wall indicate the places where the rampart has remained intact. At its highest points it attains a height of 18 feet. In the north corner of the ruin there is a mound of earth of considerable size that looks as if it were the ruins of a separate building. There are two other mounds in the middle of the space, the NE one being connected with the nearest wall by the remains of a wall-like eminence running at a slight angle. Here and there, especially on the middle mounds and along the SW and NE walls, we found a few fragments of clay vessels.
In quality they seem to be like those I had picked up in other places. There are signs of excavations in the mounds in the middle and in the northern corner of the ruin. From the southern corner at an angle of $33^{\circ}$ and $325^{\circ}$ I could see two considerable mounds of earth at a distance of half a mile. The wall and rampart appear to have been built of clay, or rather, of earth. The holes in the rampart are obviously the work of the wind.

Just across the road, at the place where we reached it this time, there is a considerable mound of earth, about $40 \times 200$ feet in size. It is surrounded by a wall, forming approximately a square, measuring $2-300$ paces along each side. The large ruin is seen from this at an angle of $295^{\circ}$. There are distinct signs of digging, but not a single piece of bone nor a fragment of a clay vessel.

July rath. I called on the local official to-day, a lively septuagenarian. For over 40 years he has Qarashahr. held various posts in the province of Sinkiang. The life of a Chinese official is curious. He sees little beyond the clay walls of his yamen. He never ventures outside the door without a crowd of brightly clad servants, mounted and on foot, in a carriage (higher officials

in a litter), through the windows and door of which, opening in fromt, the view is limited. He does not speak the language of the people and, indeed, does not come in contact with anyone but his thoroughly depraved circle of begs, interpreters, servants and helpers. The only society he has is that of his wife or wives and occasionally a mandarin on a tour of inspection or passing through, as closely confined and guarded as himself, pays him a visit. And so it goes on, year after year. Never any leave or a pleasure trip or a visit to his native place. Money is collected in every conceivable way and paid out without securing much satisfaction or change. Besides collecting illegal taxes, most of the mandarins engage in business in the towns they govern. Either a mandarin is behind a moneylender's business or a pawnbroker's, or he owns caravansarais or else makes money by monopolising the sale of some kind of goods. The Dzian Dziun at Ili, for instance, holds the monopoly for the sale of tea. Even the Dzian Dziun Tchan did not scorn this source of income, when he resided here. The expenses are heavy. A large yamen must be maintained, inspectors must be kept in a good humour, superiors must have their palms well greased, new posts must be purchased and so forth. Above all, the man must be gifted with a good head for business, to make his large income and expenditure balance. The "ta je", a kind of major domo, seems to be the trusted confidante, who pulls all the strings. Negotiations with the mandarin are carried on through him. He has great influence and his income is proportionately large (independently of his ridiculously small salary). Sometimes he represents a company of Chinese capitalists, who have for years subscribed the sums the mandarin required for his prolonged studies and exams and in this capacity it is his duty to manage the funds entrusted to him as a business concern owned by his principals.

The old man had a curious manner of talking with long pauses between his words. I was told that very cautious Chinamen do this, so that no unconsidered word should cross their lips.

July 14th. The aksakal in Kucha, who had undertaken, according to Ljo, to have my arbah repaired, Tawilgha had done nothing. I had to be content with it in its present state and pay a good sum to station have my things forwarded on a separate arbah. I let my seven packhorses go unladen, as
(Tavelgu they would have been insufficient to carry all the baggage.
on the map). It took a long time, however, to hire the arbah and engage a driver for my arbah and a new yigit (instead of Hassain, who was to return to Uch Turfan as agreed). The six days I was obliged to sacrifice at Qarashahr did my horses a lot of good. I sold the most exhausted one for 10 lan. It was indicative of their condition that one day I could not get a higher bid than 4 lan. The Torguts and Kota were sent home with handsome tips and presents. I sent the Khan's mother an opal necklace, a musical box, a triptych mirror, another in which I had framed three very successful portraits of her and the yurt, and about 100 revolver cartridges. I also showered imitation diamond rings etc. on Kota. In exchange I took both his khalats which I require for my ethnographical collection. I purchased them at a fairly high price, it is true, but as he is an habitual drunkard I am afraid he may not buy any others and I doubt whether he will then get safely through the cold and burans in the Yulduz valley and on the Dagit dawan.

The road to Urumchi goes NNE, at about $210^{\circ}$. We passed the Chinese fortress on the left and rode along a shady road flanked by trees. A strong breeze raised clouds of dust and slightly modified the heat of the sun. The flies and midges were savage and troubled the horses a good deal. There were some solitary houses standing among shady trees along the road and sparsely scattered in the plain on either side. Gradually they grew scarcer and about $5 \mathrm{I} / 2$ miles from the town we left the last of them behind and at the same time all tillage. The grass on both sides of the road was excellent and at first appetising for the animals. Very soon, however, it became very coarse and grew in tufts as tall as a man, often even taller.

About $2 \mathrm{I} / 2$ miles N of the town we passed a small, square ruin on the right, about roo yards long on each side. The wall, built of unbaked bricks, is about 15 feet above the surrounding ground. Inside, everything is filled with earth. At an angle on the left of the road and at a good distance from it we saw a large grassy mound, possibly also a ruin.

The soil, which had been saliferous and porous all the way, now became more so and the grass got worse and worse. 8-9 miles from the town we passed, on the right, the remains of a building. 2-2 $1 / 2$ miles further on the grass ceased. For a time the ground ran in mounds.

About 18 miles from the town we rode for about $2 / 3$ of a mile through a thin wood, after which the grass reappeared. We met a mandarin in an elegant carriage drawn by mules. His driver, who ran alongside bareheaded, drove at a sharp trot, and a similar carriage followed. Just behind came the caravan with his luggage, 20 heavily laden carts with Chinese faces disfigured by opium smoking, wherever you happened to look. This was the newly appointed Tsouguan in Khotan (Fuguan in Yarkand) on his way to his residence, where he was to succeed the kind and excellent mandarin. Like most people who travel on these roads, he preferred to travel by night in order to escape the flies.

Some time later, at 8 p.m., having ridden $26-27$ miles, we reached Tawilgha (or Tavelgu
on the map). Here there were a couple of houses occupied by Sarts, Dungans and Chinese, who sell fodder and food at high prices. In the winter there are about 20 Kalmuk yurts there.

The ground over which we passed to-day was nothing but sand, in some places entirely $\mathcal{J u l y}_{\mathrm{I}}$ devoid of grass. Where there is any, it is unsatisfactory in quality, coarse and grows in Ushak. tufts. For about seven miles we went either over sparsely wooded ground or over entirely station treeless patches. The trees grow mostly in rows or strips coming from the mountains village. in the north. In one of these belts of wood about five miles from Tawilgha we passed through the village of Khakhatchi, consisting of a couple of mud huts inhabited by Kalmuks. In the winter Kalmuk yurts congregate here. The fields are small and poor. At about the tenth mile the road again intersected a narrow belt of wood and $21 / 2$ miles from it we reached the village of Tchukhui on a small river of the same name, also lying in a stretch of wood coming from the NW. It is composed of 8 houses and is inhabited by Dungans with the exception of 2 houses occupied by Sarts. The houses look clean and prosperous. Wheat, maize and millet are grown here. The land yields up to an 8-io fold crop, though often less owing to lack of water.

Close to the village there are the remnants of a ruin. It was probably built of unbaked bricks, though it was difficult to tell, as the outer surface of the walls had been washed away by rain. The size of the wall is about $200 \times 100$ yards. Ten turrets, or rather projections, can be clearly distinguished on the N part of the ruin. They project from the wall at very short intervals. In the middle a mound of earth towers over the whole. There are fragments of clay vessels of the usual kind on the surface of the ground. The local people say that they have found large water vessels of baked clay, tall and narrow in shape without any design, and round millstones.

A sandy plain, practically barren, starts almost immediately after the last house in the village; further on there is a marked admixture of fine gravel. The mountain on the left was very clearly
 visible to-day and did not appear to be very far distant. In the SSW and S a chain of mountains, indistinctly visible in the dusty at mosphere, seemed to run parallel to the road at a great distance.

After covering 24-25 miles we came to the village of Ushak-tal (or Ush-tala) on a small river, about 7 feet wide and bordered with a belt of trees. An impanj with a crenellated wall rises just before the village. In its northern part there is a temple dedicated to the god who watches over officials, towering above the dilapidated walls. A Chinese post station (mapoza) is housed in the fort. - There are about 100 houses in the village. Of these 5 are Chinese, 20 Sart and the rest Dungan. There are several large sarais and a little mazar. The people grow wheat, maize and millet. The land yields a $5-10$ fold crop according to the water supply. There are general complaints of the shortage of water, but the houses look prosperous, thanks, no doubt, to the fact that the village is situated on a much used route. - There are said to be some abandoned lead mines in the vicinity that were worked about ten years ago.

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July 15th. The distance today was unanimously declared to be 180 li, ie. $55-60$ miles. I got up Post station at 2 a.m., woke my men and started at 4 . There was a fresh wind, so that we donned our at Qara raincoats. For $4-5$ miles the Ushak-tal oasis extends on the right along the river, from Qizil. which the road departs more and more. The ground consists of sand with a bushy plant growing sparsely in tufts. The ground rises constantly, though slightly. Yesterday's chain of mountains continues on the left. Single mountains rose up in the E out of the sand in front of us. The mountains that were visible yesterday in the $S$ were hidden by the cloudy weather.

After $6-7$ miles we reached the first of the mountains that were visible in the $E$. They are of no great size. The ground began to fall slightly. The road led between the mountains we had just reached on the right and small projecting parts of the chain on the left. About 16 miles from Ushak-tal we halted for a time at a post station Hsin-Ching-zu (she deep welly). The horses were watered from a well 300 feet deep, while we had some tea at the house of the chief of the post, a Chinese byje (writer) from Qarashahr. The long rope in the well is so heavy that, if you are not careful, you risk being pulled down into the bottomless, narrow pit. Four victims, who were dragged into the depths, are buried here.

Not quite four miles from this place we passed the remains of a couple of small houses built of boulders, $2 \mathrm{I} / 2$ miles further on the ruins of a rather larger house, apparently with a paotai tower. There are no signs of wells and yet they must undoubtedly have existed. Near the ruins of the latter house there is a track from the SW. The ground began to rise again slightly and a few trees appeared at the foot of the mountains. About 29 I/2 miles from our starting point we entered some small mountains and soon went up a gorge, about 230 yards wide, or rather a corridor that led us to Qara Qizil, a shabby sarai embedded among the mountains. The rooms were falling to pieces. There was dirt, dust and sand everywhere. No sign of grass or supplies. A Chinese post station is situated here. At an exorbitant price I managed to do a deal with the chief of the post station for a little straw, maize and three uneatable chickens which proved to have been fed on the carcases of horses. The high prices, additional wages, purchases of Kalmuk objects and various other unforeseen expenses had depleted my purse tc such an extent that I started the journey from Qarashahr, with $3^{\circ}$ lan in my pocket and already one-third had been spent and I had to reach Urumchi.

There seemed to be good shooting here. I saw four kiyiks in the plain, but was unable to get within range, and we passed two keklik families at close range.

July 16 th. Post station indicated as Kumush on the 40 verst
map. opposite side. In the centre there was a dry river bed. The road described a curve, open to the $S$, and then turned ESE, almost E, only receding gradually from the mountain range we had just left. The valley dips perceptibly from both sides towards the river bed. The
ground, however, went on falling up to the ninth mile of the road, when a slight ascent began. The barometer No. I indicated 669.1 here. A third of a mile further on we saw the remains of a house and $\mathrm{I} / 4$ of a mile N of it a well surrounded by a mud wall, without any hoisting apparatus, evidently abandoned. $131 / 2-14$ miles from Qara Qizil the road intersects the dry river bed which runs at an angle of $33^{\circ}$ and to the naked eye looks as if it fell westward here. On the opposite side the ground is covered with sparse tufts of grasslike bushes.

We arrived at Kumush after riding about 22 miles. Here the mountain on the right seems to join a slight eminence from the opposite side which bounds the valley. There are many sarais, fodder for the horses and supplies of food at reasonable prices in the shady little oasis. The village consists of 7 houses (3 Dungan and 4 Sart) and is about 20 years old. A Chinese mapoza station is established in it. Wheat is grown and yields a 4 fold crop. The supply of water is not large, but is constantly being renewed owing to the presence of a spring. During the four winter months there is snow occasionally, though it melts almost immediately. There are frequent burans, almost daily during the spring. Most of them come from the west. Here, too, we met one of those wonderful arbah-caravans in which mandarins transport their wives and other belongings. There is something medieval about these waggons with houses built of straw matting and equipped with doors and windows. Each arbah carries a small yellow flag with an inscription in Chinese stating to whom all these animate and inanimate treasures belong.

At midnight I roused my men and at 2 a.m. we were off. Carelessness in collecting the July 17 horses wasted half-an-hour. In the starlight we could see nothing but a wide, open, level Arghai plain of sand and gravel. Six miles from the village we crossed a dry river bed coming laq post from a direction of $170^{\circ}$. Three miles further we came to another at $190^{\circ}$ and $21 / 4$ miles station. later to a third at $170^{\circ}$. Another $2 / 3$ of a mile and we crossed a fourth. From the first river bed the ground on the left of the road had been marked by undulations and small mounds. Beyond the fourth we got among some low mounds that obscured the view. The road takes a more northerly course. The mounds become low mountains. The road runs along a corridor, roo-- 150 yards wide, covered with fine sand between small mountains. The rise in the ground was almost imperceptible. After 18 miles it began to fall distinctly. The aneroid No. i indicated 631.2.

Two-thirds of a mile or a mile from this place there was a small post station jammed between the sides of a narrow side-cleft. There was no straw to be had. The horses greedily drank some water from a hollow in the rock. It was greenish and appeared to be stagnant water. There is said to be a spring a little higher up the mountain. The ground after dropping for a short time, again began to rise slightly. Six miles from the post station we reached the highest point for the day, marked on the map as a pass. From here a distinct descent began, while we proceeded along the same mountain corridor, the sides of which grew higher, though they did not attain any great size. As to their colour, black with beautiful reflections in the sunshine predominates, though grey, brick-red and dark green are also visible. The heat in the gorge was intense, without a breath of air.

At $3^{2-32} \mathrm{I} / 2$ miles we caught sight of the grey clay walls of an abandoned post station. A mile and a third further on we reached the present one, quite a pretty establishment thanks to a temple dedicated to the water-god. A Chinese inscription on a wooden board warned travellers against covering the distance to Arghai Bulaq by night, as the gorge was flooded in the event of a buran. The rooms for travellers are passable. The stoves on this side of Qarashahr consist of a platform of clay on a level with the sleeping places. A fire is made on this platform or coals are laid on it. - Gaolyan can be had at very high prices, also a little straw.

My horses were exhausted by the want of food and the heat. The Burkhun, evidently not yet recovered from the hardships of the Yulduz road, was so exhausted that we had to halt for several hours at the halfway station. When it arrived at last in the evening, it collapsed at the gate, and had almost to be carried into a soft stall.

July I fth. Although the shortage of fodder made a stay anything but desirable, a day's rest was
Toqsun. essential for almost all my horses, especially as the majority only arrived late in the evening owing to the weak state of the Burkhun. I chose the three strongest and started with the cook and Tchao the same night, ie. at in p.m. yesterday, in order to try to hire the necessary animals in Toqsun and make arrangements for a thorough rest there for all my men and beasts. The state of my purse also rendered it impossible for me to reach Urumchi with all my horses. It was a starry night, but the light at the bottom of the gorge was very faint. Not a breath of wind. The heat was even greater than during the day. The air was heavy and the mountains seemed to exude the heat they had collected during the day. Both my companions complained of headaches and though I rode bareheaded my own head felt as heavy as if it had been filled with bricks.

On this bit of road the gorge is filled for a mile or two with large blocks of stone, between which the wheeltracks wind. The Chinese authorities are said to be improving it every year by blasting. In the darkness the indistinct silhouettes of the boulders looked quite fantastic. The steep sides of the mountains, shrouded in gloom, appeared much higher than yesterday - no doubt also because of the darkness. Here and there a faint light penetrated from a side-cleft. The horses' steps on the stony ground were clearly audible in the silence of the night. In order to keep us awake I got Ismail to start one of his two snatches of song from time to time. His hoarse, piping falsetto was repeated by the echo in the gorge. In between Tchao entertained us by whistling aLa donna e mobile», certainly with many more false notes than the gramophone record at Yarkand, from which he had learnt it.

Eleven miles from Arghai Bulaq we reached a small watercourse at the bottom of the gorge. The mountains gave way to hills covered with earth and became lower and lower. Seventeen miles from the last station lies Subashi quite close to the mouth of the gorge. Here the last mapoza before Toqsun is situated. Poor Izmail was made to boil some tea in a hurry, while Tchao and I nodded for a few minutes seated on stones. The sun had risen, however, and we had to push on in order to escape the heat for which the Turfan valley is famous. Here the road divided. The arbah route still kept to the watercourse,
while a bridle-path, about $2 / 3$ of a mile shorter, led up the hill behind the post station and thence across a grassy slope in a straight line to Toqsun. From the hill a green carpet was once more visible, at last with a grove of trees here and there, indicating the presence of houses. The descent of the gravel slope took $23 / 4$ hours. The drop in the ground which had continued incessantly since leaving Arghai Bulaq, only ceased here. We passed a row of mounds, indicating an irrigation system that characterises the Turfan district, and having passed a belt of sandheaps where grass and small bushes grew, we found ourselves on the green carpet - a plain covered with a thorny grass. The ground is saliferous with small mounds in many places. We rode past some abandoned dwellings and in half-an-hour reached Toqsun with its two fortress walls. - Note. Subashi is still in the mountains and there is no trace of Algoi and the other river marked on the map, when riding in a straight line from Subashi to Toqsun. According to what I was told, they end further east.

Toqsun is a neat little place inhabited by Taranchis, Dungans and Sarts. The former live in a little, old fort in the western part, the two latter in the centre and the bazaar street. The most eastern part is occupied by a Chinese cavalry mlansan in a large impanj, also built by Sarts or Dungans during the time of the revolt. It is square, about 385 yards on each side. The wall is about ${ }_{1} 5$ feet in height with an uncrenellated rampart, 7 feet high, without a fosse or external protected area. A double gate with a quadrangular projection as a protection faces west. There is another, walled up, to the east. Inside, along the $S$ wall of the fortress, there is a mapoza station and a large Government sarai, each surrounded by small walls. The part of the courtyard that faces N is also divided by small walls into several compartments for men, horses, stores etc. The NW corner of the impanj is bounded by the bazaar, the main street of which, about 580 yards long, forms a slight curve, open to the SE. From this quarter, easily reached from Ilan lik, the fortress is easily accessible, also from the east owing to a single row of houses coming up to the impanj. To the S and N the esplanade is open. The Toqsun district consists of six villages (including Toqsun) with a mixed population of Sarts and Dungans. The former preponderate decidedly in numbers. Four Sart and four Dungan Shang-ja carry on the local administration. In the town itself there is, besides, one each for the two kinds of population. Wheat, gaolyan, linseed and cotton are grown. Wheat yields a $10-14$ fold crop, gaolyan up to 20 fold.

The wretched condition of my horses forced me, after vainly asking the Shang-ja to procure the horses necessary to get me to Urumchi, to seek the help of the commander of the ljansa. With the kindness that characterises most of the Chinese mandarins he immediately took the necessary steps. There are 30 men in his ljansa instead of 120. The detachment seemed like a big family, in which the atmosphere was most patriarchal and sincere. The men joined in the officer's conversation, corrected him, when necessary, altered his instructions etc. They accepted abuse, but remained incorrigible.

The information I was given here regarding the road along the Algoi to Yulduz did not agree with the statements of the Torguts. The hardest part of the road is said to be between Ilan lik and the river. For about I 8 oli it goes over a stony and waterless plain. It would be


TOQSUN
Toqsun is open to the N . In the W and E it is adjoined by bands of closely scattered single houses, in the shadow of clumps of trees. The wall is 3 fathoms and the parapet 1 fathom high. The latter is not crenellated, but has loopholes. Two projections protect the gates. The one to the $\mathbf{E}$ is walled up. The other projections are insignificant. The wall is of unbaked bricks and neglected. No rampart, nor any protected space. Inside the wall several in significant clay walls to divide different detachments. Drawn by the author
difficult to shorten this part of the road by taking another course ( 80 li) owing to the roughness of the ground. For three days the road follows the river, either crossing it or receding from it. The bed of the river is not supposed to be very stony and the ascents and descents not particularly steep. This stretch of the road, however, is only possible for horsemen and pack-horses. During the third day, i.e. in reality the fourth (one day to the river), the road goes over the Ulastai dawan which is said to be so convenient that it can be traversed in an arbah. About 20 li further on another small pass has to be crossed. Water, wood and grass are obtainable. On the other side of the pass you reach Baga Yulduz in four days. The road is good. Water and grass are available. Dry droppings serve as fuel. On this stretch the road crosses a couple of small river beds, but does not go along any gorge (Sagasutai). It debouches into a wide plain with mountains at a great distance (Adunkur?). -- According to the statement of a Khoshut tsasak in Urumchi the road along the Algoi is very stony and rough for two days. You reach Yulduz along the river Sagasutai.

July 2 ist. The heat in Toqsun was very great during the last two days. The maximum temperature Pati $\mathcal{T}_{\text {sa- }}$ in the shade was $+31.9^{\circ} \mathrm{R}$. There was a high wind, but as it was a hot wind it did not har post sta- help to reduce the heat. Its usual direction was from the W or WNW. The temperature tion (Hsia only dropped slightly at night and the heat made it difficult to sleep. I put up my bed Is'a Kihu in in the middle of the big courtyard of the sarai in order to get some air. Whenever I succeeded

Chinese). in falling asleep, I was very soon awakened. Either a dog barked frantically, or came and smelt my face, or else I had to jump up and save myself and my bed from a caravan of arbahs which drove in amid the jingling of bells, loud creaking, yells and shouts. When
about a dozen arbahs, drawn by 4 or 5 horses each, are ranged side by side, very skilfully, it is true, they fill a large yard in no time. The horses are unharnessed immediately and the first thing they do is to roll on the ground and raise clouds of dust. The men start looking for rooms or making arrangements to camp in the yard and in doing so a couple of dozen Chinese can produce quite a lot of noise. In fact, however tired you may be, you have to abandon all thought of sleep. The clay walls of the house literally imbibe the heat during the day, and in the evening, after the sun has baked one of these houses thoroughly, the temperature in the rooms is like a hothouse. I spent the days in a little garden behind the sarai, where I established my travel-worn and very shaky writing table in the shade of a tree. To make me feel cooler Izmail broke a hole in the wall, scraped away the earth and in a trice I had a murmuring ariq flowing under the table. An hour or so later the host came rushing towards me in despair. The yard of the sarai was being flooded. The hole in the wall had to be closed with a lump of clay, the ground was made level and that was the end of the cool spell.

The Dungans in Toqsun were obliging and quick to understand. The host was very accommodating. He readily agreed to feed my 9 horses, Lukanin and a yigit and wait until payment was sent from Urumchi. It was rather comical to be so hard up in China as to have to leave my horses in pawn for the fodder they consumed. - Fruit was being sold, though the melons and some of the grapes were not quite ripe. They came from Turfan. Straw, bran and gaolyan were comparatively cheap.

At about 7 p.m. I started with Tchao, Izmail and a yigit. The arbahs and men used hired horses, only Tchao and myself riding our own. The sky was covered with clouds and a regular gale was blowing from the WNW. The character of the country $\mathbf{N}$ of the town was rather like the ground we had travelled over between the mountains in the $S$ and the town, except that now we rode through a sparsely populated district. The ground was saliferous, the grass coarse and unsatisfying, and there was little cultivation. In an hour the road led through the village of Uiman Bulaq with 15 houses in scattered groups surrounded by trees. The land yields up to a 10 fold crop, but burans which are common - occurring daily during some parts of the year - sometimes destroy the crops. Darkness had fallen. The moon was unable to break through the heavy clouds and the road was only faintly visible.

An hour and 40 minutes from the town we passed the last group of houses in Uiman Bulaq and all tillage ceased. For a short time the ground went in mounds, after which we came to a slight slope covered with gravel and stones that led up the mountain side. The road had hitherto gone WNW, but now turned more towards the north. Fine rain began to fall. After riding for five hours we discovered that Izmail had lost sight of the road. As it was impossible to strike a light in the gale in order to find the road, the horses were tethered and we slept on the stones.

At 3 in the morning I was awakened by the sound of horses' hooves and roused Izmail and Tchao. A Sart boy of 16 who was passing told us that we had deviated considerably from the main road and advised us to follow the bed of the river which would lead us to the post station, 15 li distant. We looked round and found that we had been sleeping on
the edge of a perpendicular drop of a few dozen feet. A few more paces and we should have fallen down the precipice in the dark. We climbed down the bank with difficulty and followed the tracks of wheels along the Agrö su that flows southward. Its banks are sparsely populated by Taranchis. The grass is reed-like, with here and there a patch of bushes or a couple of low trees. There were a few very small fields. The huts were of clay with flat roofs and more windows than the Sarts have. In one room I saw five windows in two rows, the lower being just above the level of the ground. The windows were small and protected by vertical bars made of pegs sunk into the mud walls. Only women were visible, the men being away at work. The women look brisk and frank. They do not hide like the Sart women. My guide, who seemed to be entirely ignorant of the way from this valley to the main Urumchi route, attempted to run away during a halt. He had simply advised us to follow the same road that he was taking so that he could obtain a tip and then disappear.

Having found another guide, we left the Agrö su after following it for several hours. We set a NE course and crossed the mountains of loose earth that enclosed the valley. They were yellow, grey and brick-red in colour. Beyond the mountains we crossed a small river that flows to the NW and is called Bay Tokay. Just beyond it yesterday's gravel plain began again; a broad tip of it cuts in between the projecting parts of the mountains. At if a.m. we at last reached the post station Pati Tsakhar at the mouth of the gorge that the main route to Urumchi follows. Two sarais, one Government and the other Dungan, and a mapoza station were all there was at this place. The grass was reed-like. Fodder can only be obtained here occasionally and at high prices. A messenger, whom I had despatched to ascertain the whereabouts of the large arbah, brought me the news that, owing to the severe buran, it had returned to Toqsun. A pretty kettle of fish, for my instruments, clean clothes, toilet things, a couple of lan in cash, documents for obtaining the money I had transferred to Urumchi, everything was in the arbah.

Burans occur almost daily here except in October and November. Yesterday and to-day the buran was unusually severe. Snow is very rare, falling once in several years and melting as soon as the buran has ceased.

July 22nd. Yesterday's storm had not abated, but rather increased during the night. The thin door Davantchin of my room kept rattling frantically and waking me. The dust that was blown through village. every crevice settled more and more thickly on everything, including myself. When we left at $7 \mathrm{a} . \mathrm{m}$., it seemed as if all the winds of Asia had conspired to prevent our crossing the pass. The horses were loth to move against the wind and their advance was very slow. We sat hunched in the saddle to reduce the resistance to the wind as much as possible. The gale was really so severe that with a heavy waggon it would have been wiser to wait until it was over - but what was one to do, when burans were of almost daily occurrence here! The road led up the same gravel slope, while the mountains on either side rapidly approached each other. On the left we had Hugu Nanjsan, on the right and in front the mountains are called Brankhö (Bejan). The direction was NW. In an hour the road turned into a gorge halfway to the right and went on along its bottom. The mountains on either

side were scarcely worthy of the name, they were so small. The surface was covered with gravel, the bottom of the gorge likewise. The main direction of the road was N. The rise in the ground was slight and the road good. We reached the highest point in 2 hours and 8 minutes from the time we started today. In the N below us there was a valley approximately in the direction $\mathrm{E}-\mathrm{W}$. Beyond it, ie. to the N , there were ranges of large mountmains. The descent was in a decidedly W direction.

In 50 minutes we came to the Pai-yang-ho sarah at the foot of the mountain. A dry watercourse led westward past it. Two small springs supply the necessary water and there is some shade from a clump of willows growing next to the sari. Just before it we passed a decorative Chinese memorial stone with fine dragons and designs. The front was carefully blacked to make the letters stand out more clearly. On the side away from the road there was another Chinese inscription, but it did not seem to be cared for. At Pai-yang-ho our road joined the arbah road from Turfan.

For half-a-mile we followed the watercourse in a WSW direction. Very soon the road led over the hill on the right. We crossed another dry watercourse parallel to the first. Another hill and a third watercourse, up which the road went in a N direction. Soon it turned westward again. We reached the highest point in 1 hour and 43 minutes from the Pai-yang-ho sarai. The ascent had been easy and so was the descent. On the left Hou-Kou was visible at some distance, enveloped in some places by a row of trees. We got to the river
after a descent lasting 25 minutes. The road now crept along the foot of the mountains on the west bank of the river against the stream. We met a large caravan of asses with boards en route for Turfan. An ass's load consists of 8 -ro boards slightly over i fathom in length. The road is excellent and reflects great credit on its builders. To a great extent it is made of stones held together by rushes and branches. In many places it is protected by stone caissons surrounded by piles. The construction is so careful that in Europe it would certainly be considered a well-built road. The credit for it is due to the former governor of the province of Sinkiang.

We were now in the shelter of fairly high mountains and could at last sit upright in our saddles. On the right we passed a newly established sarai, Hou-Kou. Bushes, thickets and a few trees were growing in the river bed. There was generally no grass, but plenty of low reeds. In 4 hours and 35 minutes from Pai-yang-ho the road took us across the river over an excellent bridge built of blocks of sandstone, piles and thick timber. A fine block of stone with Chinese dragons and an inscription had also been put up here. The ruins of a half-destroyed wall of a fortress were visible on a cliff close to the bridge. The Hou-Kou gorge ended here. To the N an uneven plain extended for some miles bounded in the N by a large mountain range with snow-capped peaks. A strip of wood ran in an $\mathrm{E}-\mathrm{W}$ direction at a distance of a few miles, probably indicating the presence of a river or a long village. Here and there among the green we saw groups of houses with shady trees.

Barely half-an-hour from the bridge we came to the ruins of one of Yaqub Beg's characteristic forts lying on the right of the road and barring the entrance to the gorge. Here there was a Chinese Government building, customs dues are collected, a mill worked by a horse and a sarai. The road separated more and more from the river and led in a NW direction to the strip of woodland, at first along the mountain on the left. Having ridden for 8 hours and 45 minutes altogether, we stopped in the yard of a sarai in the village of Davantchin. The road we travelled to-day does not agree with the Russian 40 verst map. We were once more among tilled fields with beautiful, luscious verdure. The grass was tall and excellent.

Davantchin is a village of 300 houses ( 260 Dungan, 20 Chinese and 20 Taranchi). Its area covers about $40 \times 70 \mathrm{li}$. Wheat, mustard and beans are grown. Wheat yields a 6 fold crop according to the rainfall, which is very irregular. The population is supposed to number about 1600 . Approximately $5^{\circ}$ per cent of the crop is sold annually. There is snow in the winter, though not much, and it melts immediately. Burans are very common, mostly from the $W$. There is usually plenty of rain. In general the weather is unreliable. It is often cold without any obvious cause. Last month a shepherd and over iooo sheep were frozen to death one night. There is a Shang-ja resident in the town, subordinated to the Shenguan in Urumchi. A ljanza of cavalry (tsoå tchi) is stationed there. The impanj is embedded among trees on the N boundary of the village. 30 men with 20 breech-loaders and about 40 muzzle-loaders form the imposing military force of the place and are quartered in the impanj. - The temperature was very different from yesterday on this side of the mountains we had just crossed. The weather was cloudy and the air so chilly that we had to button our coats.

Although the storm had abated slightly, it still continued. The air was so cold that July 2. I started riding in my raincoat, but had to don a thick coat later. For 20 minutes we rode Chi-ch through the village and its fields. When the latter came to an end, a gravel plain began tsao-tz on the right changing into a row of long raised ridges, behind which mountains covered (roud with snow showed up indistinctly. Grass still grew on the left of the road. Two miles in Cart further on we found ourselves in country enclosed by hillocks on which small creeping plants grew. After riding $5-5 \mathrm{I} / 2$ miles, we noticed a long fen on the left, not far from the road, with such large deposits of salt along the shores that we were inclined to think it was covered with ice and snow. The road which goes NW had drawn much closer to the heights on the right. 8 miles from Davantchin we again had grass on either side for a mile or two, after which the ground was again covered with gravel. About $2 / 3$ of a mile beyond we passed the ruins of an abandoned farm. A little further on the road nearly touched the hill on the right, but this receded again and described a curve. About 12 miles from Davantchin, after passing the ruins of abandoned dwellings on the left, we reached the T'ou-tun-tzu sarai on the right of the road. Water was obtained from a small spring. There is no cultivated land. Behind the sarai we came to a spur of the hills, which gradually receded and finally disappeared. The ruins of a small tower stand on the crest. The fen, known to the local people as "the salt liken, comes to an end hereabouts. About $2-3$ miles from the sarai another, slightly wider fen begins rather further from the road. $2 / 3$ of a mile from this place the road crosses a strip of loose earth, $11 / 2-2$ miles in width. The fen ends about 6 miles from the sari. 10 I/2 miles from the sarai we passed a large kurgan of gravel on the left about 17 feet in diameter at its base. On the $W$ of it there are 13 smaller ones placed fairly regularly in a row; in the S two larger ones and 2 or 3 on the other side of the road, in the N . On the E of the kurgan there are two blocks of stone, slightly above the height of a man and scarcely $1 / 2 \mathrm{~m}$ wide, without any inscription. The sides facing the kurgan are blackened as though by fire. $30^{\circ}$ from this spot a third fen begins at a greater distance from the road, also with salt deposits. The Tsai-opu sarai lies 12 miles from T'ou-tun-tzu. It consists of 13 houses inhabited by Dungans, who started tilling the land here 5 years ago. A military post (tchaza) of 3 men is lodged in a small impanj. Wheat yields a $4-5$ fold crop. There are said to be copper mines in the neighbouring mountains. A mile or more from there we rode past a thin clump of trees on the left. On three occasions we passed ruins of abandoned houses on the left, 10,11 and 12 miles from Tsai-opu. Beyond the last of them grass began again. The dusk was succeeded by darkness, the moon being hidden by clouds. About $141 / 2$ miles from Tsai-opu we passed ruined houses on either side of the road, this time more numerous and with thicker walls than before. The ground now became broken, with large undulations. On the left we caught glimpses of water now and then in the darkness. After riding for 5 hours and 15 minutes we at last reached the Chi-chi-tsao-tzu sarai. We had covered about 44 miles, but felt sure of getting to Urumchi early the following day and securing quarters etc. Chi-chi-tsao-tzu, which is probably the same station that is called Jan she dian on the 40 verst map, consists of 4 houses inhabited by Dungans. Wheat and graminaceous plants are grown. Wheat yields a $6-7$ fold crop. A small stream coming from a spring flows

through the village and provides an adequate supply of water. There is grassy pasturage near the village. A picturesque mazar stands on a hill.

For about 3 miles the road goes almost due W with hills on either side. At the point where it turns N over the hills, another track, on which there is much traffic, runs S . In the W at a distance of several miles we saw a broad belt of woodland and what appeared to be the glint of water. On the other side of the wood is a plateau and beyond it, in the far distance, rise colossal mountains, shrouded in snow. The road now crosses a succession of small hills. The ground is stony and covered with gravel with rocks projecting here and there. The hills ended about 8 miles from Chi-chi-tsao-tzu and we descended into a small plain. At its beginning lie the ruins of a small wkaraul (guard-house), past which a stream flows. $2 / 3$ of a mile further on, on the right, there is a small lake with salt deposits, enclosed by hills on three sides. We soon reached these and the road went on for a mile over broken ground, from which the rock protruded in some places. At the foot of the hills we crossed an ariq, full of water and bordered by verdure and in some places trees. Our course turned N again and on the right we passed a group of houses belonging to the village of Shih-chi-hu, which numbers $3^{8}$ houses. Small, barren hillocks stand out here and there amid the surrounding green. A mile or two further the road resumes its NW course. Another mile further on we passed a small river, Huang Chi, on the left, on which there is a wellbuilt mill. On the other side of it is a dry river bed, covered with gravel, the channel of which is invisible. There is a broad band of grass, trees and houses along the high, right bank, developing into an appreciable collection of houses further on. Their grey clay colour is relieved by the red and white flags of the ljanzas, poles etc.

We reached Urumchi and entered the town by a wide road, both sides of which were flanked by several impanjes. Beyond these the road was planted with trees, in the shade of which small European houses had been built. On the right was a modest Russian signboard, on the left the consulate, separated from the road by a massive clay wall with high wooden gates. The consul, Nik. Nik. Krotkoff, kindly offered to put me up in the chancellery building, where a couple of rooms had been prepared for me. I occupied a cool room facing

[^4]N and revelled in the possession of a bed with sheets and particularly in the large, shady and quiet grounds within the consulate wall.

The consul's quarters are in a beautiful, big house, one wing of which is given up to the chancellery and the other to the secretary's rooms. The barracks of the guard, with a large courtyard, are situated beyond a small park. A large and beautiful church is being built between these two buildings. The whole site is well planned and laid out with spacious courtyards, gardens and trees. The escort is under the command of the Khorundji of the st Siberian Cossack regiment, Ignatij Vassiljevitch Dorofeyeff, a wide-awake young officer. The secretary has just been appointed, but has not arrived yet. Dr Stakovsky, the doctor to the consulate, recently returned from the war, where he was in a Red Cross detachment. He is in an enthusiastic mood and determined to engage in practically all branches of science during his stay here. The whole district outside the consulate with its shady street, named she Russian street), is called the Russian factory and is inhabited chiefly by Russian subjects.

It was high time that I reached my destination, for I had only half a lan in my pocket and might have been forced to pawn myself.

July 28th. Today I started on a round of calls on the highest representatives of the Chinese Urumchi. administration. The Dian Dziun Tchan, at present the most influential man in the province and, it is rumoured, its future governor-general, sent his adjutant to me yesterday with the news that he had been so ill for the last ten days that he was unable to receive any callers. As soon as he felt better, he would inform me. The adjutant made careful enquiries and noted the route I had come by. Possibly the Dzian Dziun was in doubt as to whether he should receive me or not.

The Governor, who had been the guiding force in the whole of the Sinkiang province until Than was appointed, is well preserved for his years; he is a thin, short Manchurian with a springy step and lively movements. There is a touch of the ridiculous in the slightly strutting way in which this highly placed official moves. When conversing, he has a curious habit of sniffing and hiccoughing, especially when he is paid one of the customary Chinese compliments. This may be considered good manners in Peiping, where he was born and brought up. He laughed as he told me that it had been reported to him that during my journey in Chinese Turkestan I had borne the name Ma-Da-Khan and had suddenly appeared in li under the name of Ma-nu-ör-hei-mu. This confusion regarding my name was due to the following circumstances. My Finnish passport had been forwarded from St. Petersburg to Peiping to be stamped by the Chinese Foreign Office. To save time, however, I obtained another copy which was vise by the Chinese Ambassador in St. Petersburg. In Kashgar, at my request, according to Chinese custom the Taotai added two words to the Chinese signs, corresponding phonetically to the first syllable of my name, and in this way the name Ma-Da-Khan was obtained, which means "the horse that jumps through the clouds". In Peiping, however, according to the usual custom of the Legation, they had tried to render the whole name phonetically and had turned it into Ma-nu-ör-hei-mu, which sounds uncouth and barbaric to Chinese ears and apparently does not express any idea, as is the

Chinese custom. This passport was sent to meet me by the Chinese authorities and created a situation that was difficult to explain. The consul had given me two interpreters. One of them, Gui, an elderly Chinese official, is the president of the so-called Russo-Chinese Commission, an institution established in all towns in which there is a Russian consul resident. He learnt Russian in Peiping and speaks the language with thoroughly Chinese precision, pronouncing each letter clearly. Although he has a small vocabulary, he knows the language well in comparison with the so-called dragoman, Dju , my other interpreter. The latter has a comical pronunciation and mangles the language to such an extent that it is difficult to understand his fancy expressions. He has a curious way of saying "my gro" "my excellency" etc., when speaking of high officials. With their help I tried to explain the reason for my change of name. Anxious to display their knowledge of Russian in the presence of their superior, they vied with each other in rapid translation. I was by no means sure, however, that the old man understood, for they frequently failed to catch my meaning, and though I parahrased my sentences, I never got anything out of them but "khorosho" (very well). After drinking two cups of tea, filled with lumps of sugar which my three neighbours, very kindly put in with their fingers, decorated with incredibly long nails, and emptying a couple of glasses of warm champagne, I took my leave of the hiccoughing old gentleman.

At the house of the Fanti Van I found that my two interpreters had preceded me. Van, a tall, thin Chinaman of 57 , made an excellent impression on me. Thanks to his intelligence and exhaustive studies he had had an unusually rapid career and had been promoted from Shenguan directly to Taotai in Penlian (Kansu) and soon after to Fanti in Sinkiang. He knew of Sweden, Charles XII, his war with Peter the Great and much besides. He had some idea of Finland's position, though be believed that Finland had been united with Russia since the days of Peter the Great. He questioned me closely as to the relations between Finland and her powerful neighbour. In spite of being highly educated he is said to be one of the most ruthless when it comes to extorting money. The Chinese explain this by saying that he has a very old mother. This is an ample explanation, for, when his mother dies, he will have to retire (in two years?). While we were conversing, he received a Herr Bauer, who has been here for some time with a view, he alleges, to selling machinery for cleaning cotton. He is here with his cook and interpreter, known as a comprador, and came from Eastern China by the Siberian railway. The interpreter who accompanied him, wore the official headgear and was invited to sit at table like Bauer himself. When I left, the Fantai Van gave me his book in 6 volumes dealing with wars between European states (Persia figures as a European power). He inscribed a lengthy dedication before handing me the work.

The supreme judge of the province, the Njetai who also occupies the office of Taotai, was also dealt with today. Outwardly he rather resembles the Fanti, the same tall, exceedingly thin figure, with an emaciated face and clever eyes, and thin moustaches hanging from the corners of his mouth, such as Europeans imagine every Chinaman to wear. He was recently appointed to his present post from Lanchow.


The Njetai at Urumchi.

July 2gth. I continued my round of visits to-day under a glaring sun and in intense heat. I began Urumchi. with Prince Lanj, a cousin of the Emperor, exiled here on account of the part he played in the Boxer rising. He lives in a simple house in the highest part of the town, close to the yamen of the Njetai. My camera went on strike at the very moment when the central double doors at the end of his courtyard were thrown open. I fumbled with the camera which would neither close nor open, while the Prince, smiling pleasantly, awaited me about $4^{0}$ paces off. Some servants hurried forward, whispering "Tching, the Prince is waiting», but the camera seemed bewitched and would not budge. When at last I was able to move forward and explained my predicament, the Prince laughed and said that he, too, was an amateur photographer and quite understood my difficulty. I found myself, not in a spacious yamen, but in a little courtyard in front of the entrance to his rooms. The service and refreshments set out on a round table were rather more sumptuous and European than usual. A dozen breach-loaders with fixed bayonets were hung on a wall, otherwise the room with its pictures and furniture was like an ordinary Chinese reception room. The Prince, a man of 50 of commonplace appearance, had charming and less artificial manners than the usual run of Chinese. A visitor was evidently a distraction for him and he spoke with less restraint than is usual in China. In his opinion it was not always the best rifles and guns that decided a war nowadays, but wisdom, boldness, unity and conviction. The Japanese were a wise and bold nation. They fought from conviction and were united as one man, whereas the Russians suffered from internal dissension and insufficient conviction as to the necessity of the war. Besides, the Japanese were intimately acquainted with the topography of the country they fought in, which was often terra incognita to the Russians. Germany was well armed and possessed excellent

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organisation, but the Japanese were sly and brave. It was difficult to say who would prove victorious in the event of war between these powers. He said that he fancied Germany, but his arguments rather inclined one to suspect the opposite. Japan was now one of the Great Powers politically. It had attained well-nigh unforeseen importance. Who knows, it might be like a mushroom that had grown very large, but could not stand fine weather and sunshine, for then it would be devoured by worms and its immense size would not be of much avail. - The Prince is said to have a passion for rifles, cameras and gramophones, of which he has no less than three enormous ones in his house. The main point seemed to be that they should be expensive.

I also called on the district chiefs, the Djifu (Fuguan) Wang, a jovial, middlet-aged man who had formerly occupied a post in the Customs, and the Shenguan, also called Wang, but a couple of tones lower. The former, who came from the district of Shanghai, had apparently often met Europeans and had even learnt a few European words, the number of which he had increased during the time when he graced a post in Qulja. It was with an obvious feeling of superiority that he brought out a foreign word now and then in his conversation. The Shenguan was a curious looking man with a head that reminded me of a snake.

When I asked Gui the day before yesterday, whom I ought to call on, he replied very seriously: „Dzian dziun, futai, fanti, njetai, dji fut, shenguan and myself. So he was the only one left and the call had to be paid, although I had spent two days with him without interruption. He left the Shenguan shortly before me, I sent him my card by messenger,
and was received very officially, in other words all the formalities of Chinese etiquette were carefully observed.

July both.
A so-called upper school has been established at Urumchi, ie., an educational establishUrumchi. ment that gives Chinese an opportunity, on leaving a district school (at every yamen with tuition exclusively in Chinese), to prepare for entering the university in Peiping. The establishment of this school is the first step taken in the province of Sinkiang in regard to the extensive educational reforms decided on in Peiping and prescribed by numerous circulars. Tuition lasts for an indefinite time and depends on the progress made. Only those who prove to be thoroughly competent are entitled to continue their studies in Peiping in order to secure their degrees as master of arts or doctor of philosophy, the latter entitling the holder to the fifth grade among mandarins. Such studies in Peiping probably take not less than four years. The subjects taught in the new school are Chinese, English, Russian, geography and arithmetic. Chinese is the principal subject. Tuition in Russian is entrusted to Gui while a Japanese, Hayashida, is the English teacher. At the moment he was away on a visit to Japan. According to what the consul told me, he does not speak English at all. The headmaster of the school is Tchang, doctor of philosophy, my old acquaintance in Chinese Turkestan, where, in his capacity as an inspecting mandarin (the Wu ) with externsine powers from the Governor of the province, he put the fear of God into district chiefs and other light-fingered representatives of the supreme power.

During a visit that I paid him I was able to inspect the school. It is housed in a large building with several small courtyards and narrow passages paved with bricks. Most of the boarders had gone home for the holidays during this, the hottest time of the year. They live in small rooms, the doors of which open on to an inner courtyard, three pupils in a room, their names being ornately inscribed on a wooden board at the door. According to our ideas the rooms are rather dark. Each room has its own »Kang» and a big writing table. Meals are taken in a large common room furnished with a number of small tables and benches. The lecture room is also of a respectable size, though the ceiling is rather low; it has windows on two sides, and is furnished with a master's desk and many neat tables and benches. The white walls are decorated with some maps, all except one being of European origin and very imperfect, with Chinese names. The map of Manchuria published by the Russian Ministry of Finance was included in the collection. On another map that showed the principal railway lines of Europe, roughly and often incorrectly indicated, (in Finland there was a railway line drawn to Tornio), two dotted lines indicated the future main railways of China, one viâ Kalgan and Urga up to its junction with the Russian Siberian railway, the other vial Lanchow to Hami, where it divided, the northern branch running along the northern foot of the Sian Shan mountains to Qulja, while the southern branch extended viâ Aqsu and Kashgar to Andijan (!). A large gymnasium with various apparatus was obviously a great novelty, at any rate in this part of China.

The headmaster received me in an extremely simple room. Probably he was anxious to create the impression that his tour of inspection had not been lucrative. He told me that an officers' training school was to be opened as soon as the newly appointed Taotai

Yang and the staff of instructors arrived. A circular from Peiping had conveyed orders for the establishment of 30 new schools in the province of Sinkiang, but lack of funds was proving a serious obstacle to carrying out all these reforms. In talking of the late war he expressed the view that Russia would certainly have proved victorious, had the war gone on for some time longer. He also seemed to consider that Japan's unity and concord were not securely founded.

The day before yesterday Gui informed me that on the following day I might expect a combined visit from no less than eight mandarins, ie., all those whom I had called on with the Governor at their head. As there was not much time to make the necessary preparations, I resorted to the customary Chinese expedient and announced that I was ill, requesting them to postpone their visit, if possible, for a day. My request was granted and today I had the pleasure of seeing a numerous company of mandarins collected round my table, from the Fantai downwards. The Governor was unwell, possibly as a result of an attempt on his life yesterday, when a Chinese armed with a knife forced his way into the yamen.

The consul had detailed a couple of dozen Cossacks to protect his flower beds from the attentions of litter bearers, drivers and other unemployed Chinese. The courtyard of the consulate presented a lively appearance with numbers of Chinese cabs and three comfortable palanquins. The horses are unharnessed while the owner is paying a call, which makes the courtyard look like a camp. The conversation was more difficult than usual. Gui was more than ordinarily impossible in the company of such high officials. Frequently he did not hear what was said to him and perhaps it was just as well, for his interpreting went to pieces completely today. Tchao has been down with a temperature of $39^{\circ}$ for the last three days, so that I was entirely at the mercy of Gui's incapacity.

The Fanti started a discussion of Swedish and Russian history that promised to be interesting and might easily have been guided into other channels, but my efforts proved fruitless in the face of Gui's stupidity. It was curious to watch the peculiar discipline observed among the mandarins in all situations. There is not a moment's hesitation when the guests sit down to table, which is convenient for the host, who is relieved of the trouble of seating them. If they had to pass through a door, they were just as quick in forming up according to rank. A junior would never venture to go through a door until all his superiors in rank had preceded him. He stands patiently and waits, if by chance one of his seniors happens to be at some distance from the door. The palanquin carriers are wonderfully trained. The instant a mandarin makes a movement to seat himself in the palanquin, the leader gives an order and the palanquin is lifted halfway towards the mandarin and they move off at once with rapid, elastic steps.

The yigit, who had been engaged in Qarashahr, developed a temperature of $39.2^{\circ}$ this morning. This place, which seems to enjoy a salubrious climate, is apparently suffering from some kind of local fever of a gastric nature. - I have experienced another piece of bad luck, as the grey, the better of the two horses that have accompanied me here from Osh, is suffering from glanders. The symptoms (evil smelling discharge from the left


The Iantai and Njetai arriving in litters to call on the author at Urumchi.
nostril, a swelling on the left side between the jaws, blisters and sores in the nostril, sores on various parts of the body) are so characteristic that with great regret I was obliged to give away the beautiful animal. It was my strongest horse. I only hope that it will save the others.

August Eth.
Urumchi.

At last I have found a man who can serve as interpreter during Tchao's illness.
Prince Lanj returned my call today. It appears that he is a brother of Prince Tuan, renowned as the instigator of the Boxer rising. Sitting at table with him, you would scarcely believe that this modest and outwardly very charming man of fifty was one of the leaders of the Boxer rising, the object of which was nothing less than the massacre of all Europeans residing in China. He has easy and elegant manners and much natural dignity. One piece of news he told me was that, in order to avoid building a railway across the mountainous province of Kansu, the Dian Dziun had put forward proposals that Peiping should be connected with Urumchi viâ Kalgan -Kuku Khoto-Kucheng.

Later in the afternoon Bauer called at the consulate. He is an Austrian officer of the reserve and held the post of instructor in a Chinese military school at Shantung for two or three years. He has concluded a contract with the provincial administration and has undertaken to deliver a machine, adapted for water-power, for making cartridge cases for their Mauser rifles $7 \mathrm{I} / 8_{4}$ of II calibre. The maximum output annually is to be about $6,000,000$ cases. He had not been able to sell rifles because of the lack of money. The Dian Dziun had complained that the contributions that other provinces were bound to make to Sinkiang annually had not come in. In general, Bauer said, since Yuan Shih-k'ai had fallen into disfavour he noticed a certain disinclination in all the provinces to make purchases of arms except through Peiping. As everyone in China is anxious to make something
table at Urumchi.

out of a contract, theirs is not a case of buying the best, but the cheapest rifle. This is the main reason why China will for a long time remain the dumping ground for the discarded weapons of all nations.

To-day we made a trip to the country house of Prince (gungje) Lanj, about $31 / 2 \mathrm{miles}$ NE of the fortress. The district, which is called „Shumagon, is delightful, with a rapid little river flowing between the shady trees and bushes that climb the slopes - fairly steep in some places - on either side of it. There are a couple of neat flourmills on the river, with painted fronts, and the mint and cartridge factory of the province, occupying a small impanj. The Prince's house lies a little higher up on the $E$ slope just above a mill surrounded by trees and bushes, the heavy foliage of which the sun can scarcely penetrate. Architecturally these two buildings are of no importance, but their large terraces and verandas with the rushing little river just below are cool and comfortable in the heat, which is often intense. A dozen paces higher up the slope stands a modest little temple and beneath, in the bed of the river, a graceful pavilion, at a spot where the river makes a bend that half surrounds the small building. The exiled Prince is fond of coming here in the heat of the summer and resting in the cool air for a few hours. He rides out early in the morning accompanied by many servants, who exercise the numerous and beautiful, though overfed, animals in his stables.

We took a short walk along the river in order to take some photographs and inspect the mint. It is strange how similar these reception rooms are in all official Chinese buildings, even in factories. Their presence is as indispensable as tea-drinking for all visitors. In the mint one reception room opposite the entrance was not sufficient; there was another with the same red furniture at the entrance to the machine room. In the latter there were 4 or 5 machines for minting coin along one sidewall and 5 or 6 for manufacturing cartridge cases


Prince Lank in his garden at Urumchi.
along the other. Only the former were working at the time. Dollars were being minted there similar to those in circulation in Eastern ('hing. There were four sizes, viz., i lan, I/2 lan, $2 / 10$ and $1 / 10$ of a lan. The inscription was in Chinese and Turki. The design represented a dragon. The effect would be improved if the design were in greater relief. However, these coins are infinitely better than those circulating in Chinese Turkestan. I was told that foo lan were minted daily and it was intended gradually to replace the notes at present in circulation by paying the soldiers in silver. The notes are made of cloth, on which an ornamental inscription is printed, and provided with a seal, whereupon the whole thing is impregnated with oil. Such large notes, rather like oilcloth, are hard to fold and in every respect disagreeable to handle. Besides, these notes are not issued by the Government or even provincial administrations, but are simply the bonds of private firms. This should be enough to show that you have to keep your eyes wide open in dealing with such notes, which naturally vary in value according to the standing of the particular firm at the moment. A great many had lost their value long ago, but were still being palmed off on the unwary. In general the notes are only current in the town in which they are printed. One firm at Urumchi enjoys such confidence that its notes are in circulation even in Kuchens.

The manufacture of cartridge cases had been stopped for the time being, no doubt because the demand for cartridges is insignificant in this province, where a shot is scarcely ever fired from a Mauser rifle. The machines are marked „Knape, Magdeburg». I was told that the maximum output, when the machines are running at full speed, is 500 a day. Bauer maintained that, when the parts that had been ordered from him were supplied, the output could be increased to 3000 cartridges daily. About 30 workmen are said to be employed in manufacturing cartridges and about the same number in the mint. For the last few months some workmen from Eastern China have been employed in the factory. This

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fact in conjunction with the attention that the administration has devoted recenty to the branches of military and financial organisation, leads one to expect that the factory will in future work at quite a different speed.

After visiting the arsenal we dined on the veranda of the Prince's villa. The service and dishes were exactly the same as in the houses of the mandarins. During the hors d'oeuvres the Prince caught sight of his neighbour, the miller, and invited him with lisely gestures to join us. The invitation was accepted by an apparently quite common man. The party was completed by a swaggering Tartar, who acted as my interpreter during 'Tchao's illness, thanks to the consul's kindness. Apparently he was the unofficial intelligence officer of the consulate and was well informed on many points. This and an unusual supply of foreign words, wrongly employed, of course, gave him unbounded selfconfidence. The Prince and the miller drank a great many glasses of very strong Chinese brandy of a poisonous green colour. During dinner some of the mandarin's wives and children, accompanied by servants, arrived to spend the hot afternoon in the Prince's shady garden. The sight of me almost scared them away, but the miller calmed them and they climbed the slope. Unfortunately, as the Prince's guest I had to restrain my wish to photograph this group of gaily coloured and mincing little women.

Urumchi is beautifully situated on the right bank of a river and is surrounded on almost all sides by mountains. The mountains in the E are particularly imposing, rising in a series of chains, far to the NE and dominated by the snowcapped treble peak of Bogdo Olo. The mountains in the $S$ are also high and enclose the town on the west in a long tongue running N along the left bank of the river. In the N , scarcely $2 / 3$ of a mile from the wall of the fortress, there is a chain of low hills that come up to the river and drop perpendicularly into its stony bed. At the foot of this picturesque rock, crowned by a column, lies a convent

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with a group of houses, the curved roofs of which stand out well against the dark wall of rock. There is a small church with red poles decorated with baskets, on the rock. A similar column stands on the hill on the opposite bank. If the stony' river were not used for anything rather than shipping, one would be inclined to take them for a couple of beacons. They are supposed to have been erected to prevent the mountains "growing" and joining some day, thus cutting off the river. Immediately to the W of the hill with the second column the ruins of Urumchi, destroyed during the Dungan revolt, can be seen in the plain. The wall, which is clearly visible, enclosed a considerable area. You do not see much of the river, except perhaps during the season of high water. It winds in several small arms along a stony bed, fully $1 / 3$ of a mile wide in some places. The town itself covers an area 2 miles long and $2 / 3$ of a mile wide at its broadest. The $N$ part consists of the Chinese fortress, the irregular hexagonal wall of which encloses an area about $2 / 3$ of a mile in extent. The outer part of the town adjoins it in the $S$ and its wall encloses the SW corner of the fortress. This is adjoined in the $S$ by a suburb inhabited chiefly by Sarts, the southernmost part of which is occupied by the comparatively well laid out and well built Russian factory. With its broad street, flanked by shady trees, its pavements and neat little houses the latter presents a striking contrast to the rest of the suburb. There are many flourmills along the bank of the river, the noise of their stones and wheels indicating that they are kept busy. The fortified area is divided into many sections, very irregular in shape and size, which is due to the irregularity of the outer walls and the presence of numerous official residences of highly placed mandarins with their spacious gardens. A main street runs from S to N , but ends before reaching the N wall. About 300 fathoms from the $S$ gateway it is intersected by another big street which also fails to reach the outer walls. The richest Chinese shops are grouped along these two streets, and contain very fine displays, in which Russian painted tin goods etc. rub shoulders with Japanese cigarettes, toilet articles and so on. Genuine Chinese goods preponderate, however. Inside the fortress there are 8 large Chinese shops that order their goods direct from Peiping and about 80 smaller ones. There are 24 "restaurants", 15 of which are owned by Chinese, the rest by Dungans. The shops of the Dungans and Sarts, a few dozen in number, are all situated in the outer town in the $S$. There are about $I_{5}$ sarais of which 7 are inside the fortress walls. The population of the town and suburbs together is said to be 80,000, quite a respectable figure, when you consider that there are no two storeyed houses and that a large part of the area is occupied by churches, meeting rooms, government offices, barracks and the houses of the mandarins. There is a primitive attempt at drainage in the form of gutters covered with boards along the principal streets. In several places there are cab stands. The vehicles are mostly clean and in good order down to the smallest detail. The majority use mules, though this increases the cost of their harness. To protect the animals from flies, of which there do not seem to be very large numbers on the whole, blue cotton is bound round their forelegs and fastened to the harness by twine and a piece of the same kind of cloth is tied under the belly.

A police force was organised a short time ago and an apparently excessive number of constables, dressed in black with a red inscription on their chests, patrols the streets.


On every beat there is a box, like a sentinel's box. No one seems to know what the functions of the police are, themselves least of all, for they are merely passive spectators of what happens in the street. Street lighting was also introduced recently, paraffin lamps being put up here and there. By Chinese standards Urumchi is a clean and well kept town. though far from sweet-scented. In the evening especially all kinds of disagreeable smells spread through the town.

The town is the seat of the supreme administration of the province. The Governor occupies a large yamen in the centre. He is at the head of the civil and military administration of the district and has many offices for the different branches of administration dignified by the names of the Ministries in Peiping: hufan, gunfan, hsinfan, lifan, binfan, khaufan and jang vu dju fan. His chief assistant is the Fantai, who really administers the provincial finances. In this capacity he is in control of taxes, Customs dues and the treasury. The latter consists of two departments, each with a numerous staff. One of them administers the revenue and expenditure of the province, the other the silver received annually from Lanchow, with which both civil and military salaries are paid, Besides the revenue from the province $2,400,000$ lan are supposed to be received annually in grants from wealthier provinces. Out of these funds $1,200,000$ lan are paid annually to the Dzian Dziun of Ili, who has to cover all the expenditure on Manchus, Sibos, Solons and his irregular troops out of this sum. He receives the property of orphans, of which a fund is formed for granting loans on good security at moderate terms ( $12^{\circ}{ }^{\circ}$ ). Education, State mines, extension of tillage and settlement, questions concerning agriculture, the administration of the mint and arsenal, the recommendation of candidates for posts, everything goes through the Fantai's influential yamen. Minor officials, including district chiefs (tsou), are appointed by the Governor, higher officials by Peiping.

Next comes the supreme judge of the province, the Njetai. All legal matters submitted by the district mandarins are referred to him by the Taotais, who supply their notes on the cases. In addition to his purely legal duties he usually acts as adviser to the Futai and Fantai and is consulted on important questions. Their orders are communicated to the local mandarins through him (?). The control of posts and telegraphs, the local police and decisions concerning the construction and maintenance of government buildings are in his hands (?). Besides, he controls the provincial grain stores, the sale of grain, its supply to the army etc. (?). In Urumchi the Njetai at the same time occupies the office of Taotai and in this capacity it is his duty to superintend trade and all foreign subjects. All dealings with the Russian consul go through the Taotai, who has the so-called »Russo-Chinese commission" in his yamen for this purpose, consisting of Gui and his right-hand man, the dragoman Dju.

Each of these high officials has various offices in his yamen, in which numbers of minor officials and syje are employed. The Futai has 2 personal secretaries, 2 adjutants, 2 hung bis je (officials who control the red ink and write despatches to the Emperor) and at least a couple of hundred employees, who work in expectation of being appointed to some post. Almost every official you meet says that he is a candidate for some office of a higher class. As a rule they are up to their ears in debt and an appoint ment as a local mandarin means everything to them. It is not surprising, therefore, that they disparage each other and are ready to do their best friends a bad turn. Blackmailers and informers seem to flourish among the mandarins more than anywhere else. Everything is done in an exquisite way, under a shower of smiles, gifts and compliments. Even the informers employ language of poetic beauty and rare elegance.

The military administration is divided into several districts. The highest military commander is the Titai at Yangi-Shahr. There are Djentais resident at Suitin, Aqsu and Barkul. They do not appear to be subordinated to the Titai, but directly to the Futai. There are Sitais at Kashgar, Yarkand, Manes, Tchugutchak, Hami and Urumchi. The last of these also takes his orders directly from the Governor, the rest being subordinated to their immediate superiors.

At present there is unusual activity, at any rate for this province, at Urumchi among the highest officials. Some reforms have already been introduced and many others are proposed. The arrival and prolonged stay of the Dzian Dziun Tchang at Urumchi has increased the energy of the officials and their zeal for reform. In addition to his direct duties as Dzian Dziun of Ili, he has been placed at the head of all the troops in the province. The Futai, who is thus subordinated to him in his capacity as commander-in-chief, is independent in his capacity of governor. It is said, however, that an order from Peiping stipulates that all reforms should be planned and carried out by the two officials jointly. Such vagueness in their mutual position, which seems to be characteristic of Chinese officialdom, has, of course, led to dissension and intrigues. Instead of making representations jointly to Peiping, they do so independently of each other, and there is no need to worry about their placing each other in too favourable a light. According to their own ideas of the probable course of developments the mandarins are divided into two inimical parties.

Latterly, however, the conviction seems to have gained ground that Tchang's appoint ment as Governor-General of the province of Sinkiang is merely a matter of time and many mandarins are doing their best to transfer their allegiance from the Futai to Tchang. Aqsu is generally mentioned as the future residence of the former.

Tchang arrived early in the year with a tchinping" (bodyguard) of about 40 and a couple of hundred civil and military officials of different grades. On the way from Peiping he is said to have been empowered to inspect the local administration in various places, including Lanchow (?). The journey proceeded incredibly slowly. On arrival at Urumchi he shut himself up in his yamen in the NE or Manchurian part of the fortress. Officially it is given out that he is visiting the town en route for his residence at Ill, but his activities during his stay, which has already lasted eight months, are a puzzle, at all events to outsiders. Having now spent a year in Chinese Turkestan I have learnt how much faith may be placed in the rumours passing from mouth to mouth.

There is no doubt that a great many reforms have been decided on in principle and that they aim at connecting the province more closely with the rest of China, by means of instituting better communications and strengthening the Chinese element, and at completely reorganising the defence of the province. It remains to be seen how this crowd of officials with their internal dissensions, intrigues, corruption and lack of education will succeed in fulfilling the task. The extremely limited resources of the province already seem to present serious difficulties to the realisation of even the most minor reforms. The provincial administration has already had to be granted an annual subsidy of $2,400,000$ lan and the Dian Dziun is alleged to have complained that these funds come in very irregularly. A proposal for levying a tax on house property in towns, factories and workshops and for introducing a personal tax is said to have been rejected in Peiping, at any rate for the present. In view of the restricted resources of the population, which lives from hand to mouth, it seems unlikely that the provincial revenue could be increased to any extent worth mentioning by means of taxation. The suggested energetic exploitation of the mineral wealth of the Tian Shan mountains, said to be enormous, would be rational, but the lack of technical training and capital in addition to bad, not to say impossible communications, and objection to foreign enterprise, considerably reduce the prospects of speedy success in this sphere. Nevertheless, the leading men seem to be considering the idea and negotiations have been proceeding with Bauer for the purchase of various machinery for mining, pumping oil etc. Bauer, however, seemed to think that in the present state of communications it would be impossible to transport up-to-date machinery. Some coal deposits in the neighbourhood of Turfan are said to have been investigated and gold washing on behalf of the Government in the river Dshirgalan near Shikho is spoken of. A grant of 20,000 lan is supposed to have been made for this purpose, but this figure appears to be as unreliable as the statement that 200,000 had been granted for mining operations.

In connection with the economic reforms, the establishment of two new central departments should be referred to; one of them is to control the trade of the province, and grant patents, and the other to carry on mining for the Government, industrial activity, handicrafts etc.

The problem of railways - so vitally important in the accomplishment of both economic and military reforms, has entered upon a new phase, contrary to what I heard in the south. To avoid the heavy expenditure involved in constructing a railway line through moontainous Kan Cu to Urumchi the Dian Dziun has proposed that it should follow the level caravan route from Kuku Khoto to Kucheng. The proposal is said to have been approved of in Peiping and this route is considered to be definitely selected. The cost is supposed to be 400 million lan and it is proposed to cover it by issuing shares to the public and raising a bond loan in the United States. Among the mandarins, however, it is evidently considered that the financial part of the problem raises such serious obstacles that it will be some years before the construction of the railway is begun.

The spheres in which some reforms have already been introduced are education and the army. Besides the seat of learning I had had an opportunity of visiting, where two separate courses are given, one preparing small boys for admission to the school and the other training masters for the local lower schools (at the mandarins' yamens), an institution has been started under the name of "Fa syn hsiao tang», where officials, who are waiting for appointments (the so-called whubun) meet and practise delivering lectures, speeches, writing, reciting poetry etc. There they can also pass examinations that are compulsory for obtaining certain posts. Circulars from Peiping have prescribed that another 30 schools should be opened in the province, but the lack of teachers and above all the shortage of funds seem for the moment to present serious obstacles to the accomplishment of these demands. However, the projects that have had to be postponed temporarily will undoubtedly be carried out in the near future.

The first step in reorganising the military forces of the province has been taken by establishing a small cadre ("Ludziun») on the pattern of the troops organised under the same name in the eastern part of the country. It looks as though some slight departure had been made from the principles promulgated in Eastern China as to the strength and composition of these troops, but they are of no great importance and it is possible that I was misinformed in the first place. - The new troops have been formed of 4 old infantry ins and 4 cavalry this. The older men have been discharged and the vacancies filled with selected men from other old troops and recruits ( $20-25 \%$ of the whole force) from various places in the province of Sinkiang and to a slight extent from the so-called $\# k o u l i \geqslant$. Strict watch is kept that these new troops are maintained at full strength. It is even stated that two officers took poison, because they had incurred the displeasure of the Dian Dziun by allowing a falling-off to occur in the numbers of their men. It is only during the last few days that the numbers have been reduced to $10-12 \%$ owing to the discharge of all opium smokers who would not undertake to give up the habit by a certain date, and of men under the age of 20 . In order to fill the gaps, two officers have been despatched to enlist the necessary men in the interior of China. As a natural consequence of the fact that no officers of the European school were available during the initial training period (from January 1906?) of these new troops, they do not differ very much, so far, from the old troops of the province. Drill has been carried on with rare energy, especially during the first six months, but the only visible results are gymnastic exercises, which are performed with
exemplary ease and precision both with and without rifles (these replace the iron bar), and a march, in which the knee is lifted fairly high. No time has been grudged for marching exercises. In closed ranks, however, more importance seems to be attached to correct marching than to keeping line. Side by side with this drill, the bayonet fighting of the old Chinese troops, with an invisible foe, is still continued. Strange to say, firing-practice seems to have been neglected and to have been carried out much less frequently than in the southern part of the province. The first steps in tactical manoeuvres in the field can be recognised in the parody of a chain of skirmishers occasionally staged by the infantry. It is a close chain, or rather a long line than a chain, but taking cover and advancing in small groups for a dozen paces at a time. During the same exercises they are fond of forming squares, firing in four directions - the favourite manoeuvre of Chinese officers. In these manoeuvres great stress is laid on discipline in firing, but only to heighten the outward effect of the manoeuvre. It cannot be denied that a certain virtuosity has been achieved in the art of controlling fire. You see it simultaneously approach the centre from both wings of a long line and return again to the wings, or go in one direction along the rear line and in another along the front line and so on. - In the artillery, infantry exercises are carried out according to the above plan, in addition to drill in serving the guns. No firing is ever done. - The cavalry does gymnastics, fencing, and target shooting with pistols, with blank cartridges, on horseback.

To remedy the deficiencies in the officers' military training, a school, or rather a course, has been started. All officers of the new troops (including Shaoguans) have to attend this course daily from 7 a.m. to midday. Marching, manipulating arms, regulations and various other rudiments of military service are gone through under the guidance of a young instructor trained in Eastern China.

The authorities recognise that such half-measures cannot produce a really efficient set of officers and a cadet corps has been established under the marne of "Ludziun hsiao tang". The teaching staff has arrived and work is to begin at once. The curriculum covers 3 years. Tuition is to be given in topography and probably other branches of military science, Chinese, English, Russian, gymnastics and drill. Pupils are admitted up to the number of 70 (per course in all probability) between the ages of 14 and 30. They receive 5 lan monthly (it should be 8) in pay, from which 3 l. 9 t. are deducted for board. Clothes are provided by the Government. Promising pupils are assigned special duties in the school and are given special pay. So far, about 30 pupils have been admitted and a couple have petitioned to be released, but their request has been refused. On completing the course the least satisfactory pupils are made officers of the lowest rank, but the better ones are sent for three years to a military school at Lanchow, whence they are sent for another two years to Peiping and may finally be ordered abroad. This lengthy preparation entitles them, at best, to the rank of captain, It is expected that similar schools will be established shortly at IIi, Kashgar and Aqsu. This would, however, imply a general increase in the fighting forces and in the Chinese population of this province of Western China, if 280 new officers are to find employment annually.

The arms are the same as among the old troops of the province, a number of breach-
loaders being supplied according to the numerical strength of the troops. In the artillery 12 Krupp guns of -68 . There are no quick-firing guns. The Government supplies the cavalry with horses and saddles. No special staff has been established yet. Unfortunately, it is difficult to ascertain how these troops are likely to develop. The rumour that ludziun troops are soon to be formed at Ili and Kashgar is confirmed by the fact that the Dzian Dziun has despatched two officers to enlist the necessary men for 1 in (or 1500 men, according to other versions 3 in ). As soon as the necessary officers have been trained, other old ins will probably be converted gradually into ludziun until the whole of the old contingent is replaced by these troops. The contingent that it is proposed to keep under arms in the province has been reported to me as 40 battalions, 3 or 2 divisions. It is very probable that the old contingent will simply be replaced by a new one. It has also been reported that the old troops in the Kashgar district will not be reorganised, but that Urumchi and Ili will each have its division of ludziun. It is to be presumed that the officers of the Kalmuks will also be trained in a military school and that regulations will be introduced for their compulsory military service in order to create a reserve of trained men.

Settlement is a problem with which the authorities do not seem to have dealt seriously so far. During my stay in the southern district I scarcely saw any signs of Chinese settlement in recent years. What there is belongs to the period of the reconquest of the country, when plots of ground were apportioned to soldiers. In the district of pei lu (northern route) colonization seems to have proceeded regularly with settlers (to a large extent Dungans) from Kouli. The number of immigrants does not seem to have grown of late. There are fairly good conditions for settlement here in contrast to the southern district. I was informed that the following villages had been established recently: in the Manes district, 100-120 miles N of Manes, a new district is being planned. The preparatory work was done in the spring of 1906 . In 1907 as many as 700 settlers were sent there. During the time of the Tan tchou dynasty the place was inhabited. The water-course on which the settlement is being established, is called Tantchou tchy, the settlement itself Daogui hsiao gui. Fukang district: the village of Hsiasa, about 200 houses, $6-7$ years old; Uten voza, about ıoo houses, 9-io years old. The village of Sanga tchyan, N of Urumchi and W of Gantchan fu (about if miles) 3 villages with about 500 houses (room for another i500 houses) are included in the Urumchi district, $6-7$ years old. The population consists of Dungans from Sinin. Tsantsi district: the village of Beikhu, about roo houses (Dungans), established in 1905. - Khao tsu khu ( $\mathbf{N}$ of the station Khutu bi) and Hsiao tsu khu, about 300 houses (Chinese), established $7-8$ years ago and growing yearly. - Urumchi district: the village of Hsiao khi gu ( N of Khigu), 35 houses, 120 inhabitants, soldiers discharged during the last 10 years. The village of Sarrykol, NW of Kucheng, 200 houses (space for 500), $6-7$ years old, is included in the Dsjimusar (Tsimusa) district, where new villages have only been established in exceptional cases, but a steady annual increase of the existing villages is proceeding by immigration from Kouli. - At Shara Sumbo, where there was formerly a Chinese post, a town, Ortaisan, is being founded, in which (Tsanj tsans) amban is to reside. This place is said to be 12 days' journey from Manes and 14-16 from Tchugutchak close to a pass, on the other side of which lies the Russian frontier. The river

Tjesan (Tjemare) flows past it. 100 arbahs with settlers have moved there, some this year, some last. Last spring 500 Chinese, armed like soldiers and under the command of an officer, and 100 Sarts were sent there. They are to build the fortress walls. It is said that a similar town is to be founded at Sarrykol.

After much worry and trouble I left Urumchi at last to-day. The actual start was made yesterday, but in harnessing the horses my newly repaired arbah got damaged, and on Kuo M my reaching the fortress the damage proved so serious that there was nothing to be done rillage. but put up at a sarai and go to bed after a journey of 1 mile. Being tired of it, I decided to sell the arbah, horses and harness and hire a larger one as far as Lanchow. I sold 3 horses for 43 lan, the arbah harness and equipment for 45 . It could not be called a brilliant business deal, but at all events it relieved me of a great deal of trouble. For 95 lan I hired a large arbah for my own and my men's luggage. We began to load up at 6.30 this morning, but I had to wait for the horses until $1.30 \mathrm{p} . \mathrm{m}$., and when they were harnessed the driver disappeared and we had to put in another wait. No doubt, we should not have got away before to-morrow if I had not taken matters into my own hands, placed my former driver on the box and given the order to start. This manoeuvre succeeded; a few miles beyond the town the owner of the arbah caught us up on horseback and we definitely got under way.

The road went northwards. $1 / 3$ of a mile from the wall of the fortress we reached the hills in the N and the road led across them past a tower on the right. The bodies of poor Chinese are said to be burnt there. All over the bare hills small stone columns indicate the sites of Dungan graves. Some of them were apparently very old, for the wind had hollowed out the small columns and reduced the signs of humble ornamentation on them to an indistinct blur. Beyond the hills, which were scarcely $1 / 3$ of a mile in width, we entered a cultivated belt again with houses scattered about and trees or large bushes. Here, immediately on the left of the road, lay the village of Liu do van with 20 houses. The road passed on the right of it along the foot of the hills, but soon it turned slightly to the $W$ and led us into tilled fields. After winding for about a mile between trees and patches of field we passed a couple of hills of löss devoid of any kind of vegetation. I $1 / 2-2$ miles further on we were again among tilled fields, through which two small rivers flowed, at times receding from, at others coming close up to the road. At the beginning of this stretch we rode through the village of Pkho tchanza with 20 houses built inside the wall of an old, abandoned impanj. On the right, at a great distance, the magnificent, white-topped head of Bogdo Olo rose like a giant among a group of mountain ridges that descended slowly in ledges towards Urumchi. Across the river there is a chain of hills stretching far to the N , where it finally disappears in the plain. The view was magnificent and this part of the mountains imposing. The uneven ground that we had just crossed, continued in the form of two stretches of insignificant hills along either side of the road.

We rode through another small village, Tchadzvan, of $6-7$ houses. The road retains the same characteristics all the way, running between fields shaded by thick trees, and, as it were, bounded by low hills, beyond which, on the right, great mountains ascend towards

Bogdo. The width of the road is $14-28$ feet. The soil consists of soft earth or clay mixed with sand. There are no steep hills, nor any crossings of considerable rivers or streams At 7 o'clock, we reached the village of Kuo Mudi with its big bazaar. The sarai in which I put up was excellent. The village with its 197 houses has no fewer than 30 shops, 4 sardis and a small impanj with is cavalrymen of Tsoå tchi fupiao. About 30 of the houses are Chinese, the rest Dungan. Another 370 houses are scattered over a wide area in the vicinity of the bazaar. Wheat, gaolyan, peas and barley are grown. The yield is up to 9 fold. Burans are rare, in the spring $2-3$ from the W. Snow usually falls at the end of the 10 th Chinese, month or the beginning of the 11 th, to a depth of about 14 to 18 inches and it lies until the end of the list or the beginning of the and month.

Ismail, who had accompanied me faithfully for 8 months and was now to leave the expedition, had come as far as this with us. He was the last of my companions from Chinese Turkestan. I had none but Chinese servants now. It was most amusing to watch the performance that he evidently thought it his duty to give because he was leaving me. He cried like a child and it would really have hurt me to watch him, if the slightest excuse had not sufficed to change his tears into roars of laughter. No doubt, playacting is an art the Sars enjoy practising, but there is also a good deal of real though superficial feeling in these exaggerated exhibitions of joy and sorrow. These excitable, degenerate people with their expansive natures are very sensitive to impressions, but they rarely go very deep. In spite of his want of cleanliness and various other faults I liked Izmail and was sincerely sorry to part with him and his excellent pälaw.

August 27th. The road continues in a N direction. On the right a plain extends, on which creeping Fukang plants grow, and which gradually crawls up some inconsiderable hills, behind which
town. higher ones appear until they finally culminate in the grand mountains of Bogdo Old. On the left there were some isolated houses, trees and tilled fields. After a ride of $2 \mathrm{I} / 4$ miles, we had cultivated fields on either side for a distance of about 2 miles, when they were replaced by soft, undulating ground. A thoroughly decayed bridge led us across a slight cleft, dry at present. Khigu, a small village of three homesteads, surrounded by a wall, lies in a hollow, in an $\mathrm{E}-\mathrm{W}$ direction, between this uneven ground and a gorge, along which the road runs northwards. Immediately to the N of it , at the mouth of the gorge, ruins of abandoned houses were visible. The sides of the gorge are insignificant and the ascent slight. We crossed a very low pass a mile from the mouth of the gorge. The road led downwards for about $1 / 3$ of a mile to a plain, about 200 fathoms wide, coming from the SE and enclosed among low hills. The plain curved northwards round the hills on the right, while those on the left disappeared. Very soon the hills on the right also retreated from the road and we rode for about $5 \mathrm{I} / 2$ miles across a level plain. Our course was now NE, frequently due E . We passed a kind of sarai or station for travellers and a little further on remains of abandoned houses. The hills on the right approached again and the road almost skirted them for a short time. About half-a-mile further on we came to tilled land again, the trees and fields affording pleasant relief from the monotony of the plain.
$31 / 2$ miles further on we reached Fukang, a newly built district town, surrounded
by the customary rectangular fortress wall. Its length is about 200 fathoms on each side, its height 17 feet; there is no moat or protected area outside, but it has a crenellated parapet. Three double gates of baked bricks face $\mathrm{E}, \mathrm{S}$ and W . The thickness of the wall is 18 yards in the gateway. The greater part of the space inside the wall is empty. A single street connects the E and W gates.

A Shenguan resides in the town and a garrison of a cavalry in (otsuoy yiny) is stationed there. It belongs to the Bepiaow troops and consists of 40 men at present. The town was built 22 years ago, but the district was only established recently. It extends from Kan tjy an pkho in the W to Sy'shi li tienza in the E and embraces about 40 villages. The principal villages are Yu shu gou in the NW, Nanganza (about 70 houses, all Dungan) in the S, Sy'she khu, Tå gung, Pingkhu, Thu taid za and Tsy ni tchuenza in the E etc. Altogether the district embraces about 1700 houses, of which 600 are Chinese, $700-800$ Dungan and 300 Sart. An average of $5-6$ people per household can be reckoned. The villages were cultivated, but a great many of them had been destroyed during the Dungan revolt and ruins of abandoned dwellings can be seen everywhere. When the province was reconquered, land was given to many of the soldiers, including the Fukang district. These old warriors, numbering several hundred, form the nucleus of the Chinese population of the district.

In the town itself there are about 1000 inhabitants in 300 houses. There are 13 shops and 3 sarais. The bazaar outside the $E$ gate of the town wall contains about 20 shops, all very small. Farming is the principal occupation in the district. 1800 hu (of 120 djin ) of grain are levied annually in taxes.

I started with a heavy heart this morning. The new cook whom I had not had time to test in Urumchi and had to take on trust, has proved quite incapable. Neither yesterday nor to-day was I able to eat anything and my men also complain of the bad cooking. The road leads in an E direction, at first through the suburb close to the town wall, past the lianza impanj on the right and then between detached houses on either side. The landscape is of the same character as the country we passed through yesterday and the day before, tilled fields with very shady trees and bushes. We crossed a slight watercourse now and then. All the bridges are bad and the road runs alongside them. The watercourses are so small, however, that they scarcely present any serious obstacle at any time of the year.

The village of Tju jundie, the bazaar of which is situated in an abandoned impanj, is about 5 miles distant and $I / 3$ of a mile further on we pitched our camp in a cluster of trees, quite close to the road. Tju jundie contains 30 Chinese, 3 Sart and ro Dungan houses and was built 40 years ago. 3 shops. I decided to stop here and wait for Lukanin, whom I had sent back to the town in order, if possible, to find Izmail. Our camping place was attractive and we were pleased to have turned our backs once more on an evil smelling Chinese town. Through the trees I caught sight of an endless line of camels gliding past with their silent gait. There were hundreds of them, laden with tea from Kuku Khoto and Kucheng to Urumchi.

Towards evening we realised the bogginess of the place, and although the temperature was not low, we felt the cold severely during the night owing to the damp air.

Augustgoth. Yesterday's journey of about 20 miles was done on foot. The weather was dull and Tsyni clouds hung over the hills on the right. Bogdo Olo was invisible behind the clouds. ıchuenza For 2 miles the road passed through the same cultivated zone. This was succeeded by village. a plain, on which some creeping plants and tufts of grass grew. On the right, at a distance of several miles, scattered groups of trees could be seen between the road and the hills. They cropped up inconsequently, running parallel to our direction, throughout the day. Not far from the edge of the tilled land a few houses were visible among these trees. A mile from the tilled area we passed some deserted houses. In some places the plain was very saliferous. About 3 miles further on we passed a house "Ta tchuenza* built for supplying caravans with a few necessaries. Water is obtained from a well.

At a great distance, on the horizon in the NE, a strip of mountains popped up, apparently running SE. The soil is löss, mixed in places with very fine gravel. E of Ta tchuenza, sparse and rather coarse grass, but edible for the horses, grew here and there. About 6 miles from the last house, we came to another, Siao tchuenza. Here, too, there was no tillage, the population making a living by trading with passing caravans. There was a sufficient supply of water from a well, but it was slightly salt.

3 miles further on a strip of land began, from $S$ to $N$, covered sparsely with trees. Here there were many remains of deserted dwellings. We crossed a couple of streams and a marshy place. The village of Tsy'ni is situated in this tree-covered strip. It consists of 23 houses (io Chinese, io Dungan and 3 Sart) and has a bazaar with 14 shops, 3 sarais and an impanj with a shao ( 13 men ) of the Tsimusa cavalry lianza.

The water supply depends on the heat, i.e., the melting of the snow in the Bogdo Olo mountains, from which the water is brought down by a stream, Peimia ho. The snow falls in November to a depth of 1 metre and melts in February. Severe western burans occur generally in the spring, sometimes for 20 days at a stretch, in the autumn at intervals of $2-3$ days. Gaolyan, peas and wheat are grown and yield up to a tenfold crop. Two Shang-ja administer the village and the surrounding villages: Tchungko, 40 houses with 200 inhabitants, Pa khu ko, 30 houses with 230 inhabitants, Shang khu ko, 20 houses with 230 inhabitants (Chinese), Sosoko 30 houses with 180 inhabitants, Ehrda kho, 28 houses with 120 inhabitants, and Tung tchyen, 30 houses with 150 inhabitants. - There is said to be copper, coal, iron and sulphur in the mountains to the $S$.

September 1st.
After a delay of two days Lukanin turned up at last with our ureasure» Izmail. In the
Santai village. meantime our food had been cooked by one of my new Chinamen, Tchang, who appeared to be unusually willing and proved to be a fairly good Chinese cook. If I had tasted his cooking before, instead of the awful stuff served up by my so-called new cook, I should probably not have wasted two days in waiting for Izmail. Well, we are often at the mercy of circumstances and they had made Izmail and his pälaw indispensable.

Life in the dusty and unusually uncomfortable sarai was anything but pleasant. During the day we were tortured by the wind that stirred up clouds of sweepings and dust, from which it was, if anything, more difficult to protect ourselves than from half-starved dogs and pigs. If I drove the latter out of my room, I was sure to find them in the kitchen, from
which they again made for my room. The travellers who visited the sarai during these two days were not interesting. There were a couple of minor officials in their arbahs, converted into waggons by means of straw matting, in which they sat with their wives and servants. Their method of washing in the morning consisted of rubbing their faces and hands with the towel they used at meals, rung out in hot water. - Some of the Torguts who had accompanied the Khan to Peiping, passed our station in two groups of 8 arbahs each. Life in the great world had apparently not affected their habits of cleanliness in the slightest. It would have required a shovel to remove the top layer of dirt alone from them. It was a pleasant surprise for these children of nature to meet a European who had not only come almost straight from Bain Bulaq, but could show them photographs of the Khan's mother, their lamas and other friends. A good many of them were travelling free of charge with horses taken from the local population. It proved so difficult to secure the necessary horses for them, however, that the "suje" abandoned his mapoza station and disappeared into the unknown.

Some of them were still waiting for horses when we left at 6 a.m. The road led E again and ran between tilled fields and isolated houses along a strip of land strewn with trees, bushes and woods. The soil was clay or löss and we crossed a number of streams and watercourses. Close to them in hollows and other places we saw patches of standirg water, through which ran deep tracks of wheels. During the thaw they interfere considerably with wheeled traffic.

A mile and a half from the station we reached the main part of the village of Pa khu ko, the $3^{0}$ houses of which are scattered over an area of about 5 miles in an E direction. I Chinese, the rest Dungan. Wheat, gaolyan, tchumiza (tchau mi), oil plants and millet are grown. The average yield is 5 fold. In the spring there are 2 or 3 heavy westerly storms. The produce is consumed on the spot and there is little for sale. In a couple of places the ruins of deserted houses are visible. At the spot where the village area is crossed by the road, there is an uncultivated patch, about 2 miles wide, with a few trees here and there, after which the ground resumes its former character.

We were now in the area of the village of Eh'rdakhoza that continued for $11 / 3$ to $12 / 3$ of a mile, when the wooded zone, which had already grown very thin, was replaced by a plain like the one we had ridden across between the last stations. The houses of the village, about 10 in number, are scattered among many deserted houses, destroyed during the last Dungan rising. Some wheat, mostly tchumiza, millet and oil plants are grown. The yield is $6-7$ fold. On the edge of the wood we crossed a couple of overgrown river beds and noticed signs of fields that were formerly under cultivation. The soil on the plain consists of sandy clay or löss, with a considerable admixture of gravel in places, especially further on. In the $S$, as before, some isolated trees ran parallel to the road halfway to the mountains. The latter were clearly visible and Bogdo Olo stood out in imposing beauty in the sunshine. It no longer had the same concentrated form as when seen from the Urumchi neighbourhood, but formed a snowy ridge of several miles, from which its three peaks protruded. In the $\mathbf{N}$, at a great distance, a line of mountains appeared again, seeming to melt into the horizon in a NE direction. Their yellow colour gave them the
appearance of sand-dunes, but they must be very large to be visible at such a distance. 3-31/2 miles from the wood the road led to some low gravel hills on the right which became very considerable 2 or 3 miles further on. The road runs along their foot. Sy shi tchuenza, a solitary farm that lies $41 / 2$ miles from the edge of the wood, is used by travellers as a resting place. There is a well with a limited quantity of good water, but it has to be cleaned yearly. There is snow from November to March or April up to $31 / 2-41 / 2$ feet in depth. Westerly burans are common in the summer, rare in the autumn and weak in the spring. Some stone cairns like road marks could be seen on the other side of Sy shi tchuenza. Creeping plants grow sparsely on the plain. The ground dips slightly to the N and S behind the gravel hills. A few miles off we saw scattered groups of trees in the NE and a few lonely houses. We passed the ruins of a couple of houses on the left. About 8 miles from Sy shi tchuenza we came to another strip of ground with trees and a few deserted houses. I I/3 miles further on we passed through the large village of Lavtai, of which only the ruins are left. A tower of baked bricks alone has defied destruction and remains standing. This village, which gives you the impression of a big cemetery, affords clear evidence of the extent to which this country has been ravaged quite recently. A mile or two further on we reached the village of Santai, having ridden $22-23$ miles.

The road was good to-day with the exception of some marshy places and many bridges, all of which were bad. During the greater part of the year the bridges are of no importance and in any case with the supply of timber available, they can easily be repaired.

Santai is a clean little bazaar of about 25 houses. It contains 4 sarais, one of which is excellent, a beautiful temple and about 20 shops. The garrison, in a tumbledown impanj, consists of 5 cavalrymen (tubiao) of the lianza stationed in Tsimusa. - In the neighbourhood there are Laotai and Laokhuli, together about 40 houses; Sjiti with 20; Jan tjy taiza with 10; Tama tchung with 10 ; Tungti with 20 and Tchyng jang khu with 30 . Wheat, peas, gaolyan, flax (?), tchumiza, millet and a little opium are grown. Wheat yields a 10 fold crop, gaolyan 30 fold and the rest $6 \rightarrow 7$ fold. - The mountains are said to be rich in coal which is supplied in fairly large quantities to Urumchi.

September 3rd. We left Santai at 5 a.m. yesterday in an E and ESE direction. The country was similar Tsimusa to that traversed the day before. Tilled fields, scattered trees, clumps of trees and bushes village and here and there a solitary farm. Close to the village we crossed a fairly considerable (Dsjimusar stream with clear running water. Almost all the other numerous watercourses, ariqs and in Sart). streams we crossed were dry and bushes and trees grew in the beds of some of them. The road was good and mostly a few yards wide. The bridges, however, are all bad, but can be avoided everywhere. Marshy spots are rare. About 2 miles from Santai we rode through a small group of houses, the village of Khukhuke with 5 houses. A mile or two further E the village of Tchyng jang kho with 30 houses begins. A mile from it the wooded strip, proceeding $\mathrm{S}-\mathrm{N}$, ceases and a barren plain of sand or löss begins. Here we saw some ruins of houses. Bodgo Olo was only visible from time to time. The plain was succeeded by another wooded strip scarcely $2 / 3$ of a mile wide about $11 / 2$ miles from the last. It contains the village of Shuang tsakhöza with about 40 houses built among the ruins of

destroyed buildings. A couple of shops and signboards of craftsmen give the road through the village a bazaar-like appearance. The plain becomes broader to the E towards Tsimusa and is similar in character to the open spaces we crossed during the last few days. The vegetation is very sparse, only a few creeping plants. In the fields we saw the ruins of a couple of deserted houses. The plain is slightly over 4 miles broad. On its $\mathbf{E}$ edge we came to the village of Liu shu khöza with 20 houses. Immediately beyond its first houses there is again a tilled area with some scattered trees. On either side of the road there are ruins of houses destroyed during the Dungan revolt. To the W of Tsimusa there was a ruined village, or rather town, a mile or two in length, the walls of a considerable impanj being visible.

We reached Tsimusa after riding $14{ }^{--15} 5$ miles. It is surrounded by a clay wall roughly rectangular in shape and $2 \mathrm{I} / 2$ fathoms high, with a crenellated parapet. The S wall is slightly broken. The length of the side is $200-250$ fathoms. There are gates on the E, W and S, and corner buttresses of the same height as the wall. In the W wall there are two slight projections between the gates and corner buttresses, but no moat. The gateways are of baked bricks. The gates are of wood with light reinforcements of iron. The esplanade is limited somewhat by a clump of trees in the W, ruins in the NW and the bazaar in the E. Inside the fortress there are a main street and a side street from W to E leading from one gate to another, another at an angle from the E to the S gate. The greater part of the area is not yet inhabited. A Shenguan is resident in the town. The garrison consists of i infantry and i cavalry in. Of the former there are 18 men and of the latter 13 , who form the ntown garrison" of the "fupiao» under the command of a "tsan dian» (red hat button). The barracks are approximately in the middle of the town. There is a beautiful temple close to the S gate of the town with a lion and an incense burner of cast iron. These are a little over 100 years old and were brought here from a temple in Eh'rkung(?) destroyed during the Dungan rising.


Temple with lions and incense burner of cast-iron near the southern gate at Tsimusa.

About $21 / 2$ miles to the SW there is an interesting temple on the edge of the northernmost spur of the mountains, where many Chinese from surrounding places (including Urumchi) congregate annually. The building was put up recently to replace one that was destroyed during the last revolt. It looks well high up on the slope, painted white and embellished with dark wooden columns supporting the roof with its curved corners. The mighty pile of mountains with its white shoulders forms the most striking background imaginable. A decorative incense burner in the form of a lion stands in the brick courtyard between the main building and its two wings. In the temple itself there are two horseshoe vaults, one, enclosing the other, something like this:

One wall of the back of the larger vault is occupied by nthe god of sleep», a giant burkhan, io paces long, lying on his side. It is of clay and coloured, the head being black with curly negro hair and a large knob in the middle of the forchead. Nine figures of Buddha, about 1 metre in height, are placed in niches along the outer wall on either side of the side entrances of the vault. In the inner vault
 there are 3 large images of Buddha in 3 recesses in the wall.
The walls in both vaults are also decorated with hundreds of small painted clay images of Buddha, placed on wooden sockets. Some of these are missing, others have been replaced by new ones. They are supposed to make women fruitful and are therefore much sought after by childless women. The temple takes its name "the temple of a thousand burkhans" (I tchiän fu tung miao) from the great number of Buddha images. The temple, which is new, was built as a shelter for the burkhans (including the large one) that survived the Dungan revolt. The local population assured me that the large image was of stone and very

ancient. My information was obtained from the Chinese priest, who had collected contributions towards the building of the temple and subsequently carried it out. It was impossible to photograph the giant in the dark vault, only about $11 / 4$ metres wide. The remains of the destroyed shrine, carved stone with some Chinese characters etc., lie close to the temple. The priest said that from the inscription on it and from the inscription on the incense burner you could see that the temple was not more than 100 years old.

A wanderer from Peiping arrived to-day. He said that he had subsisted on this long journey by selling toys, which he carried in a light box. He has a small son with him, and they completed this little walk in 5 months. My men told me, however, that he was paid by all the district mandarins and was obviously hunting for an escaped prisoner.

The Tsimusa district is about 150 li from W to E (from Sy-shihli tinza to Tachuentzu which belongs to another district) and 200 li from N to S (from Khopuza to Tjyenza käi). In addition to the town with ino houses (30 Dungan, 13 Sart, the rest Chinese), 57 shops and 5 sarais ( 3 inside the fortress) the district contains the following villages, outwards from the town:
in the $W$ : Shih ulipuza 18 houses; Tchingsuihu 24; Ta ma tjyenza (Dungan population) 35; Santai 87 (?); Shuangtsa khö (Dungan population) 18 ; Liushi khö 24; Tchỵng jang khu 30; Kan tjyenza ${ }_{7} 7$ (Dungan population); altogether about 250 houses with 834 inhabitants; in the S: Talun khö 23 houses; Hsiao lunkho 13; Tiu tsäi jyenza 27 and in the mountains Kuang tjyenza käi 37 (bazaar with 18 shops and 2 Shang-ja for distributing water); Tjyenza käi 47 (bazaar with 23 shops); in the SW Hsintai (Dungan) 50; altogether about 147 houses with 660 inhabitants;
in the E: Erh-Kung ti with $3^{8}$ houses; Titi woza 45 and Tukung 6o;
in the $\mathcal{N}$ : Ulipuza, consisting of several small villages with about 300 houses (200 Dungan) in all and Khopuza 120 (38 Sart, i Shang-ja for distributing water) - altogether about 420 houses with 1100 inhabitants.

Gaolyan, wheat, peas and some opium are grown. There is water in abundance. The area to the $W$ of the town is watered by 4 small rivers, in the $E$ by 6 , in the $S$ by 10 and in the N by 5 . Some of these, however, are quite insignificant. The abundance of water and the ruins everywhere indicate that there are great possibilities of cultivation here. You gain the same impression, more or less, during the whole of this journey of six days. - No new settlements appear to have been established in recent years. - The amount of $\operatorname{tax}$ levied in the district amounts to $5890 \tan (\mathrm{I} \tan =400 \mathrm{djin}$ ).

A road leads from Tsimusa across the mountains to Turfan.

September 5th. Kucheng (Guchen).

After two fruitless days at Tsimusa we went on to-day. The day was cloudy with a slight wind - excellent weather for riding after slight rain during the night. - Our direction lay ESE. At the end of the bazaar the road led over a small river, on the other side of which there was a group of ruins. The character of the landscape was the same for quite $\mathbf{1} 6$ hours. The road was several fathoms wide, sandy and dusty, and ran between tilled fields, bushes and trees, though sparser than during the last few days. We crossed two or three small water-channels. The bridges were thoroughly rotten. Here and there we passed a solitary house or saw a ruin among the green. On the way we passed the villages of Erh-Kung, Chi-chi-wa-tzu and T'ou-Kung. When the cultivated land came to an end, an open plain began, covered with tall, coarse grass called „tchi» (Lasiagrostis splendens). On the right we saw a couple of groups of trees and in the WNW at a distance of several miles another wooded strip of land approached the road. We passed Tatjyenza, a group of 4 houses subsisting on sales to passers-by. There was no cultivation, but water was available from springs and wells. Another district begins at Tatjyenza. i 2/3 miles from there there is a sarai, Joutsansa, with 2 houses.

The wooded strip we had noticed at a distance begins about 4 miles from there. The road touches its southernmost point close to a house of the village of Hsiao tung. The river of the same name, about $I$ fathom wide, flows northward past it. Immediately beyond it the ground is marshy. - The road turns in a NE direction here, at times almost due N . On the right the ground goes in slight, long undulations. The coarse grass had become more luxuriant and in the N and NNE woods were visible far off, while in other places the plain melted into the distance. Twilight began to spread.

We were now very close to a huge cloud of dust that had for a long time seemed to be moving in an opposite direction to ours, and could distinguish a great number of camels in it. They approached in 3 columns, led by Chinese on foot. The loads of the leading animals were decorated with little flags bearing the name of the owner of the load and its destination. In the half-light the flags either dipped and disappeared or rose again like buoys tumbling about among the waves at sea. The first columns of 15 animals each were followed by others, these by others still and so on. This was a transport of arms on 500 camels, leaving Kucheng in the quiet night en route from Peiping to Ili. About 100 camels carried cases of rifles, the rest cartridges. The cases were marked Tientsin, Birmingham. Here and there an officer or armourer was seated high on a camel's back, nodding in time to the animal's movements. The silence and order were admirable.

A cargo of arms on 500 camels makes a journey of 3 months with about a dozen unarmed officers and armourers as the only escort. Not a single mounted rifle could be seen! There cannot be many countries, in which this could happen.

Owing to our being delayed by this interesting sight, we did not reach Kucheng until after dark. Izmail, who had been sent on ahead, had got me a large and splendid room through the aksakal in the house of an old Andijanlik. He had twice been Hadji. Endless handshaking, dastarkhan with sweets, incomparable Turfan grapes, bread, tea and pälaw, all this is almost as trying to the patience as conversing through an incompetent interpreter.

The Kucheng district contains the following villages in a direction outwards from the town:
in the $E$ : Syshi li pu, a station of 5 houses (3 Sart) on the high road; Hsiti 50 (Chinese); Tung ti 46 (Chinese); Khau-taidza 26 (Chinese); Tchitai 47, bazaar (Chinese and Dungan); Tung tchyn-za 16 (6 Sart); Mutikhö 105 (Chinese and a few Dungan and Sart). S of Mutikhö lie Khei Santu 70 houses, bazaar with 25 shops, an impanj for i lianza (?); Pikhigu 20 (Dungan); Shang pu and Hsia pu together 37 (Chinese). - $\mathbf{N}$ of Mutikhö Nanpei tcha 75 (Chinese);
in the S: Bäj-jen-khö 73; Ma-tchang 30; Pa-tia-khu 8 (rented by Chinese); Lung vang miao (rented by Chinese) and Pan-tie-kou 102 ( 42 Dungan, 10 Sart, the rest Chinese). The first four villages belong to Manchurians, who let their land;
in the $W$ : Si guan close to the town wall 200 houses and 31 shops ( 50 Dungan houses, 7 Sart); Hsiao tun 30 houses and 3 inns (Chinese); Liu-shu-khö 84 (Chinese); Hsia-sän-tun 94 (Chinese); Shang-hu-ti 30; Ta pan khö 103 (Chinese); Ta tyenza 66 (Chinese);
in the $\mathcal{N}$ : Sha-shenza 25 houses (Chinese); Päi-ta-tchou ${ }^{2} 5$ (Chinese) and Shang-tou-tun 97 (Chinese).

The word village is really a misleading term, for with the exception of bazaars there are no groups of houses. Each house stands separately and the next one is usually no nearer than $I / 3$ to $2 / 3$ of a mile off.

Wheat, peas, millet, oil plants, tchoumi (a white mustard-like flower usually grown in colder climates) and some opium are grown. There is no gaolyan. The land appears to yield an 8-io fold crop on an average. There is a good supply of water and there seem to be comparatively good opportunities of breaking new ground. Except in the N , where there is a supply of spring water, the water comes from the mountains and the quantity depends on the quantity of snow in the winter. In some places it happens that cultivation is curtailed in view of the small quantity of snow during the previous winter. The majority of the population are immigrants from the interior of China. During recent years no increase in the number of immigrants has been noticeable and no new villages have been built. 14,900 tan of grain are levied in taxes annually in the district.

The town itself contains 3004 houses with a population of about 15,000, composed of Chinese, Dungans and Sarts. There are 642 shops, of which 6 do a large wholesale trade and 25 (io belonging to Russian subjects) a slightly smaller, but nevertheless considerable business. Russian trade does not fall short of 50,000 roubles per shop.

Kucheng lies at the crossing of the high road over Lanchow to Peiping and the caravan routes to Kuku Khoto and Uliasutai. In addition to local trade with Mongols in the neighbourhood and Kirghiz from the Altai district, Kucheng maintains close trade relations with Urumchi, Ali and Tarbagatai. The corn grown is not only sufficient for local requirements, but a good deal of wheat is sold to Kobdo, Uliasutai and Dakura. Caravans are sent there with wheat, maize, lapsha and corn brandy from Kucheng and rice from Manes.

The Chinese population in the district is said to own 20,000 camels and the Dungans 2,000. Wheat is bought in Kucheng for a little over 2 lan for 100 djin and is sold in Uliasutai at 6 lan. Most of the larger businesses in Kucheng have their own shops in Urumchi, some in other places, too, and firms in other places have their agents in Kucheng. Chinese dealers in other parts of the province draw their goods partly from the comparatively large stocks in Urumchi and Kucheng. 20,000-30,000 camels are said to come from Peiping annually with goods to a value of over 2 million lan and about 400 camels are sent there with medicines mostly from li, cotton, raisins and dried apricots from Turfan etc. Hides are sent to li and Lanchow. The population in adjacent districts is said to own as many as 15,000 camels. In payment for goods obtained from Eastern China, joint caravans for all the Chinese merchants in the province are despatched to Peiping with silver 4 times a year (September, December, February and May). The size of the caravans varies from 150 to 200 camels with loads of 2400 lan each. To Chihli alone over a million is sent annually and to other provinces, such as Szechwan, Honan etc. between 2 and 3 million. Altogether about 13,000 camel-loads of goods, medicines, sheepskins, ox hides, Russian cloth etc. are despatched annually into the interior of China.

The town lies in a large, open plain. Far to the $S$ the Sian Shan mountains raise themselves, a tip of Bogdo Olo still being visible among them. In the N the flat plain appears to be wooded - an optical illusion. The clumps of trees are, in reality scattered, without any actual connection. In the W there is a bazaar street and near the E gate you see the remains of the destruction wrought by the Dungan revolt - a fortress wall, still fairly well preserved in half its extent, and ruins of houses. The river Khabuleho flows $E$ of the town quite close to its NE corner and an ariq with plenty of water leads into the town area. The river has its source in springs about io li N of the town and is the main artery of the surrounding districts. Divided into 5 branches, it waters a large area, being further supplied with water from springs $S$ of the town. The hexagonal, slightly dilapidated town wall encloses a large, densely populated area. It is only in the SE part that there are some empty spaces. Churches, meeting houses, arches in honour of virtuous women, relieve the uniformity of the architecture to some degree, but they are all of recent date. The official buildings include the mandarin's yamen, the grain store and a small impanj not far from the $S$ gate. The bazaar street goes eastward from the $W$ gate, though it does not extend as far as the opposite wall.

The Chinese shops are not distinguished, as in Urumchi, by their displays, but have large, tidily kept supplies of textiles. Some spacious Chinese restaurants with a multitude of small tables and benches, and with doors and windows curtained with muslin, seem to constitute one of the streets' greatest attractions. Bakers and craftsmen exhibit ready-


## GUCHEN or KUCHENG

Kucheng lies in an open plain with practically no trees or houses. The wall is slightly screened by the suburb Siguan in the W . In the N and E a few houses near the wall. In the S the ruins of a fortress rampart. In the N thin clumps of trees are visible at a distance. The town wall is neglected, $3 \mathrm{r} / \mathrm{2}$ fathoms high, including the parapet. There are ramparts forming two levels. The gates have no external protection and a slightly semicircular inner protective wall. The gates are of wood with small iron fittings. No protected ground outside the wall. A fosse, about $21 / 2-3$ fathoms wide and $11 / 2-2$ fathoms deep, is lacking in some places. The wall is of clay. A small impanj outside the E gate. The N and W parts of the space inside the wall densely populated. In the S there are some empty spaces. The mandarin's yamen close to the E gate. Near the S gate a small impanj surrounded by comparatively open spaces. - The Manchurian town forms inside the SW corner. Its area is densely populated. The wall, including the parapet, is $31 / 2$ fathoms high, of clay except the archway which is of baked bricks. Gates of wood with iron fittings. Width of the wall 25 yards at the gates. Both wall and fosse badly neglected. There is a protected space, $31 / 2-4$ fathoms wide, with a crenellated parapet, Ifathom high, in the $E$ and $S$ alongt he wall. In the $S$ this has half tumbled down. The gates have protecting projections. The fosse is flanked by these and the corner projections and partly by the projections between the gate and the corner. The stores of arms and of powder in the commander's quarters marked by a $X$. There is a commanding tower in the centre of the town and some smaller ones above the gates and at the corners. The fosse is $21 / 2-3$ fathoms wide and about 2 fathoms deep. - Drawn by the author.
made goods and have their workshops along the street. There you have the undertaker with his brightly painted massive coffins, the basket-maker sits and weaves his baskets, coopers make deep, slightly flattened barrels, or rather tubs that are used by camel caravans
for holding water. Silversmiths with their glittering ornaments, furriers, smoky forges, fruit from Turfan, meat stores, dealers in clothes, pawnbrokers, a chemis't's shop, a bric-àbrace shop, a potter, kitchens with their evil-smelling, cheap food, are jumbled together along the long bazaar street. In the towns along pei lu (the northern route), however, the bazaar presents a considerable contrast to the trading carried on in the south. The Chinese element and the Dungan, outwardly very like it, predominate here and their influence is noticeable everywhere. Trade is carried on constantly on an equal scale and not on a fixed day as in the south. Nor is there anything like the seething mass of people here that you see, for instance, in Yarkand, Khotan or Kashgar, elbowing their way along the narrow, draughty, covered-in street. Beggars in their peculiar professional garb, shouting storytellers, women in impenetrable veils and decorative, venerable Hadjis with their staffs and dazzling white turbans which, with garish carpets and coloured blankets, give street life in the south a certain oriental glamour, are absent here. You look in vain for the Kashmiri and the Hindu with his bright but sly and insinuating exterior, the ostentatious, vehement and unapproachable Afghan, the cringing but at the same time supercilious native Beg, with the mark of the slave protruding from under his rich furedged velvet cap in the shape of a Chinese pigtail. The Andijanlik, the Chinese Turk and Tartar disappear here, there being so few of them, in the blue-clad crowd of Chinese and Dungans, who form the mass of the population. There is an air of uniformity about this blue-clad crowd and the Chinese shop with its finicking and often rather beautiful display is less artistic than the little cupboard-like crib of the Sart, where the owner sits on a bright carpet spread on the floor surrounded by coloured silk and cotton cloth.

The SW corner of the town is formed by the Manchurian fortress, built in the shape of a square with a two-storeyed tower in the centre. The fortress, about 200 sq . fathoms in size, is densely populated and houses $\mathrm{I}, 060$ Manchurians and their families. Excepting the Manchurians stationed at li, this is now the only Manchurian garrison in the province of Sinkiang. It was formed of the Manchurians who survived the Dungan revolt with the addition of some families that removed from Ali, Barkul and Turfan (?) to replace the garrison which, it is said, was practically wiped out on that occasion. They form 6 not quite complete techy (a techy should number 200 men ) under the command of the "tchyng she y" (corresponding to a Djentai) Kuj. The troops consist partly of fairly old men and have no idea, even according to Chinese standards, of the most elementary training or military drill. The bows, the traditional weapons of the Manchurian which established their fame, have been replaced by old, rusty Remington rifles (number unknown) and cart-ridge-boxes with the inscription Hampshire regt», but no shooting practice is done and no cartridges are to be found in their equipment. General Kuj, a polite man of 56 , does not appear to have the remotest idea of his profession, which is not surprising seeing that he rose to the rank of general by looking after Prince Tuan's ducks and geese. He said he had never handled a rifle, and when I asked what system he considered best for arming the troops, he replied very modestly that whatever rifle was sent from Europe would always prove excellent in China. His second-in-command, the Tchengje Fang, a toothless old man of 60 , is in command of a tchi. A company of about 50 men who were paraded at my
request in order to be photographed, were incapable of performing any evolutions whatsoever. The men, who were of medium height or perhaps slightly taller, looked healthy, but apathetic and lazy. This was not surprising.

Each family has a small house of its own and every member is paid a certain allowance until his death. They are liable to military service in their garrison and are not allowed to engage in trade or farming. Military service, however, seems to consist of nothing but efforts to increase the Manchurian race. The houses and their inhabitants look poor. There were no signs of trade except a couple of vendors of fruit and meat who had their carts close to the tower in the middle of the fortress.

It is said, however, that a change is imminent. Two men of each tchi have been sent to Urumchi to be trained by the instructors there, shooting practice and drill according to the new regulations have been ordered and will presumably be introduced on the return of these 24 men. - Part (half) of each tchi is to be mounted. The horses are supplied by the Government and are kept in a large herd somewhere far off, a couple of days' journey from the fortress. Saddles have also been bought for Government account. They are bought up at Barkul. There are no cavalry exercises, scarcely even any practice in riding, but in view of the agility of the Chinese and their proficiency in riding they must be considered mounted, once horses and saddles are available.

The day before yesterday another transport of arms arrived from Chihli for the Dzian Dziun Tchang, 52 arbahs with 1,000 Mauser rifles of Chinese manufacture, 4 printing presses and a large quantity ( 30 arbahs) of printed matter and schoolbooks. They were accompanied by a civilian official and 50 "huping», on whose uniforms \#lis ludziun* was inscribed. According to their statements they were to be followed by other transports, $4^{0}$ pupils of the "tjing vu hsuo tang" (a school with a 2 years' course which prepares men for various minor posts, such as policemen and lower officials), 10 foremen (according to statements 2 compositors and 8 railway builders) and 460 men of the ludziun infantry from Chihli under the command of 1 in and 2 shao kuan.

The Manchurians in Kucheng receive an annual allowance of 43 djin of wheaten flour per month and 48 lan a year, when a vacancy has been created by death in the number of troops ( 6 tchi). Thus, children are not maintained as at Kouli. However, 40 djin of flour monthly and 8 lan annually are allowed to single women and widows. Drill is supposed to be done every fifth day, the rest of the time may be devoted to handicrafts and other occupations (including trade?) within the fortress; as a matter of fact they can also do as they like on the fifth day. The Manchurian officers have the following ranks:
for each tchi: I tsuoling = inguan and has his own seal. Actually the head of the administration.
I tsanling = inguan's bambanj. In charge of military training.
5 hsiao tchi hsiao $=$ shaoguan, one for each of the
5 fangy $==$ shaoguan's bambanj 5 tsa ( 40 men) of the tchi.
5 bosh hu = pajguan (?)


The Tenge Fang, commander of a thin, surrounded by his men al Kucheng.

This ranking of officers is said to be peculiar to the Manchurians, who include Mongolians under the name of "Mangtchi».

September seth. A certain quantity of coarse paper is manufactured in Kucheng from straw with the Kucheng. addition of a kind of grass. This material is cut very fine, mixed with some lime and is soaked for 3 or 4 days in holes filled with water. Then it is treated again in a very primitive furnace made of straw or lined with straw in the shape of a stack. The fire is below the surface of the ground and the smoke escapes through the stack. The material treated in this manner is ground in a kind of mill and poured into large square holes filled with water. From time to time the lowest layer is stirred up and the turbid water is caught up with a kind of sieve-like tray made of wisps of straw. 'The sheets obtained in this primitive manne are dried by being plastered in long rows on the clay walls of adjacent houses and walls. In this way 4 workmen produce daily 1200 sheets of coarse paper, brown, if made of straw, and rather lighter, if old paper has been used. The workmen are paid 32 copecks per day and the paper is sold at 4 took for to sheets.

There is said to be coal and ammonia 4--5 days' journey N of the town. The coal is brought in large blocks by camels.

September 18th. We started about 5 this morning. I divided my small expedition. My Chinese, who is I yenzakai known as "kapitan" because he speaks the curious Russian that the Chinese in Manchuria silage. have adopted and according to their custom addresses everyone as "kapitan" (captain), was sent with the greater part of our equipment by the arbah highroad to Turfan. I took the road across the mountains with the rest of my men. We had hired 6 donkeys at $11 / 2$ lan per head for the loads.


I had never seen such traffic in the streets of Kucheng as when we left this morning. Arbahs drawn by oxen, camels laden with large blocks of coal, donkeys bringing fruit from Turfan, the place was seething and every now and then we were forced to stop and wait, while the arbahs manoeuvred to get past each other. My two arbahs stuck at least a dozen times with their axles locked in some other arbah until at last we succeeded in getting away from the town and the suburb.

As far as the village of Hsiao-tung we followed the road to Tsimusa which runs SSW -NNE and SW - NE in this part. In the distance in front of us the mighty range of mountains rose up, from which Bogdo Olo could be seen rising in the SW. All the higher peaks were wrapped half-way in snow after the cold weather of the last few days which made the view magnificent. Far to the N, or rather the NNW, the outlines of a mountain that I had not noticed before were indistinctly visible. From the village we continued for several hours in a direction $50-55^{\circ}$, while the road to Tsimusa led further west. For 40 minutes the plain was covered with the same coarse, tall grass, mjitji). When this ceased, the plain was sparsely covered with low bushy grass which changed a little further on to a scanty growth of poor grass. The land is barren and flat with a scarcely perceptible rise southwards.
go minutes from Hsiao-tung we passed the first solitary house of Tungva sue, a village that is said to be large. The fields were small and scattered, but the houses looked neat and prosperous. It was only half-an-hour later that we passed another house and io minutes after we crossed a comparatively rapid river of negligible depth, flowing in two arms six feet in width. About $3 \mathrm{I} / 2$ hours' ride from Hsiao-tung we entered the area of the village of Shiliang and passed a house. In the E and W we saw similarly isolated houses and here and there still rarer trees. 15 and 35 minutes later we once more passed houses with small fields. The ground was sandy and sparsely covered with low grass. 50 minutes
later, after the ground had been rising constantly, it began to drop slightly, almost imperceptibly and formed a slight hollow N of the N spur of the mountains. io minutes later another solitary house and 30 minutes further on the ruins of a number of deserted buildings.

The road now took a slightly more southern direction and we crossed the river Tjutienti Kusa, the bed of which lies some 12 ft . below the rest of the ground in a $\mathrm{S}-\mathrm{N}$ direction. The slopes of its banks become hills about $2 / 3$ of a mile further on, those to the E of the river being appreciable and forming the northernmost spur of the mountain chain, covered here with a layer of earth or sand, from which the denuded granite protrudes here and there. We proceeded on the other side of the river, drawing ever closer to the hills in the $W$. These became lower and lower. Those on the E bank of the river had become quite insignificant after a steep and fairly high rise. The ground along the W bank, over which the road runs, is uneven and forms slight mounds and hollows.

After a total ride of just over 7 hours from the village of Hsiao-tung we reached Tyenza kai, a lively little bazaar with a couple of graceful temples embedded in greenery. There was a good deal of life in the street and plenty of people who collected in groups and jostled each other in front of the booths and shops. The Dungans with their white cotton caps and often with enormous moustaches and the Sarts from Turfan were represented in great numbers besides the Chinese, of whom there seemed to be almost as many. The sarais were full. After a great deal of discussion, however, I succeeded with the help of the authorities in obtaining a stinking cabin which 5 individuals surrendered. Fruit baskets, donkeys, horses and sleeping people, wherever you looked in the dirty yard. Over there, two companions in vice - opium smokers devoting themselves to smoking, which has become a necessity for them, stretched out on a blanket by the side of their small lamps and in danger of being trampled upon by some beast of burden. Yells, shouts, the barking of dogs, the hee-hawing of donkeys almost unceasingly throughout the night.

Near the foot of this magnificent, snow-covered mountain range the little bazaar looks fairylike in the moonlight. It takes my thoughts back to Khan Jailik, the smoky, filthy sarai that made an indelible impression on me in its majestic surroundings. The village has $20-30$ houses and 15-20 shops, mostly Chinese. Fodder, meat and bread can be bought at about the same price as at Kucheng. Miza, millet, wheat, peas and some opium are grown and yield up to io fold, though entirely dependent on the snow that melts in the mountains. This year, for instance, the crop was no more than 2 fold. There is snow from November to March and it reaches a depth of I $1 / 2$ metres. In the spring westerly burans occur almost daily and in the winter now and then. In the autumn and summer they are rare.

September 1gth. Sung shu go station.

The day's march was to be a short one. It was important that I should cover the distanc in sufficiently good condition to negotiate the pass on the following day.

A glorious view was unfolded as we started early this morning from the filthy and overcrowded sarai. The weather was clear and the air cool owing to the proximity of the mountains, the snowy summits and green wooded slopes of which would have charmed anyone. You approach one of these imposing ranges with eagerness and impatience and try
to imagine in advance what striking views will succeed each other on the way to the pass, but the reality usually surpasses your wildest imagination and I cannot recall any instance of disappoint ment.

The road leads through tilled fields with solitary trees, bushes and clumps of trees. The direction is SW. In a mile and a half we came to the bank of the river Talunkhu which flows $N$. The road turned $S$ and we followed the bank of the Talunkhu at first and later one of its arms. 2 miles further on we resumed the original SW direction, crossed the arm of the river that had disappeared at the bottom of its hollow and $1 / 3$ of a mile later reached the village of Nju tyenza with 4 houses, the last cultivated land $N$ of the mountains. The fields were small and poor and the houses looked poverty-stricken and uncared for. The trees disappeared altogether from the fields which had become rarer. Immediately beyond the village the northernmost considerable spurs of the mountains begin. The ground N of these is in the nature of a series of parallel ridges of considerable height running northward in tongues. The Talunkhu flows in a valley between two such ridges and further N another hollow is visible. Still further north, at about the height of the place where yesterday's road crossed the river Tjutienti kuza, appreciable solitary hills arise, forming a frequently interrupted chain of mountains, apparently running parallel to the main chain. Some, at any rate, of these hills, are bare granite rocks. The road now led us into a gorge, where we reached the bank of the river again a mile or two from the village. On the right large mountains rose up, often with denuded granite surfaces. On the left they were smaller at first and covered with a layer of earth, on which firs grew. The direction of the road was decidedly N. A mile and a half further on we crossed the river and zigzagged up the steep opposite bank. The mountains on the left now displayed their granite faces and often dropped from an appreciable height sheer into the river. Firs still grew in all the crevices, often on such steep slopes that it was incomprehensible that they could find a foothold. On the right the mountains took on softer outlines and granite points protruded from the earth only in places. I I/2 and $2 / 3$ of a mile further on we crossed the river again. The bridges are new and built with care.

Soon after crossing the first bridge the road, which had been running south for a time, resumed its SW direction. It is very picturesque, creeping along the steep slope with a roaring and foaming little river far below. In some places it passes through fir-woods mixed with deciduous trees. The beautiful yellow and red autumn tints were particularly lovely in such magnificent surroundings.

A mile and a half SW of the third bridge the road leads over Sa dawan, a projecting point of the mountains on the right, and almost $2 / 3$ of a mile from there we reached the Sung shu go station, a modest building on a level spot on the slope of the bank. The road is good and suitable for wheeled traffic as far as the gorge. In the gorge, too, it is mostly grod. Only in two places immediately to the $S$ of the bridge $N$ and $S$ of $S$ dawan it is so steep that a wheeled vehicle would require assistance. In some places it is so narrow that only pack-horses can pass. Blasting would be necessary to make it passable for carts, though not to any great extent. The road is firm and good for pack-horses. There is water, fuel and timber everywhere, also edible grass. Many small spots are suitable for resting places
for large caravans. The sarai is very bad. I was housed with my men in a smoky and sooty kitchen the sole merit of which was that it was built of logs so badly fitting that they allowed the smoke to escape, though they let in the wind.

September 2oth. Shiuza station. almost until morning. At $\&$ a.m., when I performed my duties of waking the men, the sky was still completely overcast and I was hesitating about starting, when I caught sight of a blue patch which revived my hopes. The horses were saddled, the donkeys loaded up and about an hour later we started.

At first the character of the gorge was the same as yesterday. On the left high and fairly steep granite rocks with a thick growth of the firs here and there interspersed with deciduous trees that creep up the most inaccessible walls of rock. On the right, rather less steep mountains, the surface of which is covered for the greater part by earth overgrown with short grass. The road, however, is from the very start rougher and considerably narrower than yesterday. The same rapid little river went on roaring at the bottom of the gorge, its seething surface and noisy current being very picturesque in the wild surroundings. On the right at an angle of $120^{\circ}$ a gorge opens immediately behind the sarai. At the place where its walls meet, mighty snow-covered mountains are visible. In about half a mile we crossed the gorge by a narrow, but strong and new bridge of logs. Immediately beyond it the river again receives water from the right at $80^{\circ}$ from a gorge »Nienza gu» and I/3 of a mile from it we crossed a similar bridge. The road, now leading part of the way up the slope, then down again into the bed of the river, was rough and stony. At times it was fairly steep or crossed slippery shoulders of rock. $1 / 3$ of a mile from the bridge we passed the ruins of a sarai, built of stone and destroyed during the Dungan rising according to the statements of the local people. The ruins looked rather older, however. The place is called Shang bäng vo. On the left we now had snow-covered mountains and the wooded belt scarcely extended halfway up their slopes. $2 / 3$ of a mile beyond the ruins of the sarai, after a stiff ascent, we came to a narrow gateway, 1 I $/ 2$ metres wide, in a spur of rock in the mountain on the right called Shi-myngza (mountain gateway). The ascent that had been steep from the first bridge to-day and at times simply fierce, was now almost imperceptible for I/3 of a mile, after which it began again, if possible even steeper than before. The wood on the left ceased altogether, only mountains enveloped in snow being visible on either side of the road. The road now ran, with slight deviations, in a SW direction, ascending steadily, until 2 miles further on we crossed a last bridge, weak and unsatisfactory. The banks of the river were steep and we had to make some short climbs up and down slippery walls of rock. Otherwise the ground consisted of sandy clay, now comparatively firm, but deep and slippery in places after heavy rain. The greater part was heavily strewn with stones of different sizes, washed down by rain or wrenched out by the wind at some time from the crumbling sides of the mountains. From the last bridge the road takes a more southerly direction and finally leaves the river which is now called Tchän tsho gu. The gorge out of which it appears to come is called Ho-to-pu-tzu (the camel's neck). Crossing a steep,
stony slope, we reached and crossed another arm, Chi-pu-tzu liang, of the same river and the journey up the pass continued along the slope of its left bank. For a mile or two we could sce it winding at the bottom of the gorge until at last the covering of snow hid it from view. From the bridge there was a stretch of almost 3 miles up the snow-clad slope.

The ascent and the road are really longer, for I included our zigzagging and many other small détours in my calculations by reducing the time. The road is only steep for short stretches, but the stony ground and the long ascent tired the horses considerably. The pass with its traditional Kalmuk praying site lies between two fairly considerable mountains at $274^{\circ}$ and $94^{\circ}$; the former in particular is high. In a SSW direction there is a long mountain that seems to be considerably higher than the nearest ones; at $358^{\circ}$ and $\mathbf{2 4}{ }^{\circ}$ two glaciers depend from its ridge. In the N between the mountains forming the gorge we had ridden through, we still caught a glimpse of the Tyenza käi plain and in the $S$ the beginning of the deep hollow in the snow that we had to follow was visible. As far as we could see across the mountains everything was white. During the sixth month of the Chinese calendar (July) all the mountains except the high one in the SSW are said to be free from snow. The greater part of the granite walls of the mountains with their thousands of crevices are denuded. There is only a thin layer of earth here and there. The mountain peaks and slopes simply sparkle in the sun as though strewn with thousands of diamonds, while passing clouds cast a deep shadow over large fields of snow, and some peaks are already shrouded entirely by low-hanging grey clouds. The light was particularly puzzling to-day from dazzling sunshine to black shadow.

The road to the south is considerably rougher than the one to the north. After descending steeply for a few minutes over stony ground we reached the bed of a small river having its source in the pass in two arms. A few minutes later we came to a gorge with a water-channel on the right. The direction that had been due S , was now SE. The bottom of the river was excessively stony. The road took us from one steep bank to the other and constantly crossed the river bed. The ascents and descents were often very steep, not infrequently over smooth rocks along a narrow path. The gorge and the bottom of the river were broader than to the north of the pass. The vegetation was infinitely poorer. No signs of trees and only seldom very sparse grass. In character these gorges are very reminiscent of those I passed through on the journey to Muzart; although the latter- are far grander, there are the same striking differences between the S and N sides of the chain of mountains. After riding 3 miles in a SE direction, during which we passed 3 gorges on the right and 2 on the left, the river turned south. We passed a couple of easy slopes, on which very low grass grew. On the left a gorge opened up with beautiful white-clad mountains in the background. 2 miles in a $S$ direction, during which the road led at times along a narrow, breakneck path high up on a slippery slope, brought us to the Shiuza sarai that lies at another turn of the river to the SE.

On the left an appreciable gorge opens up here, called Miaoku after a temple that stood at the mouth of the gorge ages ago. The ruins consist of a rectangular stone heap with an empty space $12 \times 8$ metres in the middle. Not far to the $S$ of the sarai there is an upright block of stone, scarcely a metre in height and about 0.6 m . in breadth with a slightly

tapering base. On its surface facing SW two eyebrows are visible and signs of eyes seem to be distinguishable. The nose seems to be marked by two indistinct lines and two hollows that appear to have been made by the wind take the place of the cheeks. The eyebrows are darker than the rest, possibly the result of fine moss having settled in the very slight hollows.

The sarai is of stone, but very defective. Grottoes have been made in the wall of earth above it and are also used by caravans. No supplies can be bought here. - A likin station levies toll on travellers here. Fresh and dried fruit (chiefly grapes) and cotton are brought from Turfan to Kucheng; from Kucheng to Turfan opium, gaolyan, tobacco, matches and various odds and ends, Japanese cotton cloth etc. Likin is levied on dried fruit and fresh apples (fresh grapes are on the free list) i tchen 5 per donkey; in large transports 3 donkeys are reckoned as 2 ; on cotton 2 tchen per ioo djin; on cotton cloth 1 tchen 1 f. per piece; on various small articles 8 tchen per 100 djin and on opium at present il. it. 6 I/2 f. (formerly i lan) per 100 djin . There is lively traffic all the year round. When the snow is deep, only horses and mules are used. The road is said to be too narrow for camels.

In general, to-day's road was quite suitable for pack-horses, though it would be exhausting for heavily laden ones. A little blasting and digging would improve it appreciably. The S gorge in particular is difficult owing to its exceedingly stony and rocky ground. It would not be impossible to prepare the road for wheeled traffic, but it would require very extensive blasting.

We met a great many caravans with fresh fruit and the little courtyard of the sarai was full of sleeping people. - Ibexes are said to be plentiful in the mountains here, though there are no horns of wild sheep to be seen.

September 2 rst. Pai-yang-ho or Yoghan Terek station.

We left Shiuza early this morning, having been thoroughly cold during the night, every onc of us. The river valley, fully 150 fathoms wide, goes in a SE direction for a mile and a half. Here a mighty gorge opens up on the left, from which the river Shiuza sui obtains water. Along the gorge, which is called Tung go, a road is supposed to lead to Sung shu go ovẹ a difficult pass. This road is said to debouch into the Sa dawan gorge near bridge No. 3 or near the Njenza river gorge and is only used by horse-thieves and others who prefer to avoid the highroad.

Here the Shiuza gorge makes a turn almost at right angles and goes on in a southerly direction for over 8 miles. The mountains are now perceptibly lower. They confine the stony river bed in two irregular lines, either approaching each other with slightly projecting points or retreating in large curves. The river bed, or rather the valley, for there are slopes with bushes and a little grass slightly inclined towards the river on either side, varies in breadth from $1 / 3$ to $2 / 3$ of a mile. The bed itself is still quite as stony, but the ground on both sides is considerably less rough and in some places there are quite reasonable stretches. Several appreciable gorges are visible in the mountains - one on the left especially is large. It is called Tagan go (the large, dry gorge) and has a stony bed, quite $1 / 3$ of a mile wide,
with a slight drop, like the one we followed. The direction of the gorges is ENE or WNW. The mountain slopes, especially in the gorges, are not particularly steep; if I had had time, I should have been tempted to explore some of them and try to secure a wild goat. I had never seen such quantities of \#keklik" as there were here. We heard them cackling everywhere and saw their charming silhouctes disappearing among the stones.

The river, about I I/2-2 fathoms in width, that had kept us company since yesterday's pass, disappeared suddenly after flowing $S$ for a couple of miles. When I had lost sight of it for some time, my guide told me that it disappeared in the stony ground. The vegetation was still very poor, though slightly better than in the upper half of the gorge. A spiky cactus-like bush occurred and an extremely small quantity of grass - so little and low that it is of no practical importance. The long mountain valley grows narrower at its southern point and forms a kind of neck of a sack. A small river runs out of a gorge on the right and on the left, too, close to our road, a stream murmurs that had risen from some unknown source. Very yellow trees grew along both of them. The comparatively narrow neck of the valley is closed in the S by a long mountain ridge, considerably higher than the surrounding mountains, and with plenty of patches of snow. It appears to take a NE-SW course and is bounded in the N by a broad river bed, Pai-yang-ho or Yoghan Terek, into which our gorge debouches. On the left of our road lies the sarai "San-Shan-Kou" (the gorge of the three mountains) situated on the strip of land that is surrounded by the two river valleys. Some fields are ploughed in San-Shan-Kou. The shortness of the warm season only allows of barley being grown, which yields a so fold crop. There is snow from November to April, 0.3 m deep. Burans from the $\mathrm{W}_{3-4}$ in the summer and $\mathrm{I}-2$ in the winter.

From San sa go a road goes further east than ours along the "Tör lang Kou" gorge to the Turfan valley. It is used mostly by Sarts. The third gorge is to the ESE and debouches into the Pai-yang-ho valley from the south. Over it you see, at an angle of $268^{\circ}$, a high mountain ridge with patches of snow, called Karlik tagh. It appears to be a part or a continuation of the ridge due S of us which the local people call Qaragai tagh. The road leads across to the opposite bank of the Pai-yang-ho and then SW along the river bed. The mountains on either side are in the form of a succession of hills proceeding from larger mountains in the background and separated by deep gorges that often form more or less large open spaces with an inclination towards the river. The mountains on the right bank seem to retreat and their spurs, which extend to the river, grow lower until they are almost flattened out. The banks descend vertically into the river from a height of about $\mathrm{I}_{5}$ fathoms. The ground consists of a conglomeration of hard sand and medium-sized stones. The mountains are granite and their surfaces are not covered with earth. In the stony bed the river winds from one bank to the other. At the foot of the slopes of the banks there is a belt of deciduous trees. At the spot where the mountains almos tdisappear on the right bank, we saw a solitary house of the village of Panjatie ( 8 houses). The road led us down the high bank into the belt of trees, and when we ascended again, the mighty ridge of Qaragai tagh had come up to the river and once more brought a succession of separate low mountains up to the right bank.

Immediately afterwards we reached the Pai-yang-ho sarai at the foot of Qaragai tagh
surrounded by trees. It is built of stone and rather larger than Shiuza, but no more comfortable. Meat, and reeds instead of hay, are obtainable. The weary horses pounced greedily on this unappetising food.

The journey to-day was incomparably better than yesterday, especially in the upper part of the Hsiu-tzu gorge. The first 2 or 3 miles were very rocky and in two places in the Pai-yang-ho valley the road runs along a narrow mountain cornice; otherwise, though undeniably stony, especially where you cross the bed of the river, it is quite passable. The cornices can be avoided by a détour along the river. There is water, fuel, a little grass and reeds and good camping places in the Pai-yang-ho valley. Quite apart from the cornices I have mentioned, the road cannot be called broad. You follow a track, but the surrounding ground is wide enough, only the worst stones having to be removed. Up the Pai-yang-ho gorge a pass is reached, by which it is said Tyenza käi can be reached from Yoghan Terek (Pai-yang-ho) in a day. My guide assured me that it had been decided to open it to traffic by next summer, after a few obstacles had been removed.

September 22nd. On the right bank of the river, a few miles above the sarai, there is a small village of 4 houses named Kona shahr after a small ruin, round which the houses are grouped. The base of a rectangular wall, $79 \times 62$ paces, built on the edge of the slope of the bank, which is fairly steep here, dominates the valley of the river towards the north. There are no baked bricks, but the walls are supported on the side facing the river by greatly decayed poles or very small logs. It appears to be very old. A homestead was established among the ruins. Within the ruins all traces of old buildings had disappeared, nor could we see any human bones or the usual fragments of clay vessels. Across a ravine-like furrow cut by the water alongside the ruin, there is a raised piece of ground, slightly larger than the ruin. It looked as if it had served as the foundations of some building. Nothing was known about it in the village. The inhabitants had lived there for several years and were only able to tell me that the ruin was in existence before the Dungan revolt. The local people grow barley, peas and wheat. The land yields an 8 fold crop. - Westerly burans are common in the winter and also occur in summer. There is snow from November to April to a depth of 0.3 metres.

In the afternoon we rode about 4 miles down the river to another sarai Hsia Pai-yang-ho, where we spent the night. The mountains on either side of the river drew closer and closer together. The narrowest part was reached in about a mile and half. The bed of the river was not more than 100 fathoms wide here, but soon the mountains on the right retreated and the bed widened again, though only slightly. The belt of trees that ran along the river from the sarai, grew thinner and gave way to a few isolated trees. On the left the slope of the bank divided and made room for a dry, broad water-channel, and a mile or two further on we rearhed our camping place, a stone hovel with a single room occupied by the kitchen - Pai-yang-ho. There are westerly burans 5-6 times in the spring, rarely at other seasons. 45 houses. Peas, barley and wheat are grown. A $4-5$ fold yield. Frost is common. - In Hsia Pai-yang-ho: snow from December to March, 0.15 m in depth. 4 burans mostly from the south $5-6$ times in the spring.

About $2 / 3$ of a mile below Hsia Pai-yang-ho the road grew very rough and ran for fully 8 minutes along the smooth rock of a narrow mountain cornice. Here it turned away from the river and took us zigzagging up the steep bank. For about 7 miles the road led in a SE direction, the last bit along a slight valley with traces of water. The ground is firm gravel. At a distance of a mile or two on the left there is a considerable mountain; on the right a smaller one that ran parallel to the road with slight interruptions. The valley we followed turned north and brought us after a couple of miles to the Shaftalluk sarai, situated in a clump of trees. Meat and fodder can be bought in small quantities. There is water, fuel and a little grass pasturage. Just above the large sarai some springs feed a murmuring little river or stream that winds down the valley and is called Hun liu khöza. The ledges and the bottom of the valley are terracotta colour. Some dry water-beds combined during our journey with the one we had followed, but no water was visible anywhere.

From the sarai the road took us up the right-hand slope of the valley and over a black gravel plain with a constant drop southward. On the left our valley seemed to run SSE. On the opposite side there was a barren plateau of rolling land with a drop southward, forming a continuation of the mountains that we had had on our left. On the right the mountains had disappeared. As far as we could sec the same falling black gravel plain extended, intersected here and there by a valley in the NNW-SSE. Before us the Turfan valley was spread out. Water sparkled indistinctly far to the SE. Immediately in front of us a succession of small, isolated mountains and far on the horizon the Choltagh chain of mountains. Neither oases nor Turfan could be seen in the dust-laden air. On a clear day it should be possible to survey a large part of the valley as if from a balloon. The Kichik sarai, where we camped, lies on the same river as Shaftalluk, about 4 miles lower. There is a clump of trees, some grass and water and a passable sarai. It is little used, caravans usually halting at Shaftalluk.

The road from (Shang) Pai-yang-ho to the mountain cornice is stony, but passable even for wheeled vehicles. There is fuel and water everywhere and in some places grass. After leaving the river the road crosses firm ground consisting of gravel and is quite suitable for wheeled traffic. There are no supplies except at the sarais.

There is not much to be said about the road from the Kichik sarai. It leads SE over a hot, monotonous and apparently unending plain of gravel and stone. A mile below Kichik we passed quite an insignificant sarai of the same name. No fuel or grass; a small quantity of water from a little ariq is all the place can offer. About the same distance further on we came to the ruins of another sarai. Immediately after the murmuring water of the Hun liu khöza accompanied the road on the right. When the road finally separated from it, we went on across the gravel plain, which has a perceptible drop southward. We rode across this ground for fully 10 miles in almost the same direction. On the way we crossed a broad, dry water-channel, the course of which was N - S . In other places, too, we noticed small furrows, as though cut by descending water. We were now quite close to the small chain of mountains that ran W-E near the middle of the valley. To the north of it there was a green strip that widens in the $\mathbf{E}$ and covers a considerable space. The air
was so full of dust that it was only just possible to distinguish in the ESE the outlines of the turret of a mosque that indicated the site of the ruins close to the town. The Choltagh mountains were still only vaguely visible. In the E a mountain rises without any apparent direct connection with the chain in the N and NE .

About 3 miles before the edge of the oasis the gravel plain forms large mounds running in fairly straight parallel lines. This was the famous Turfan subterranean irrigation system, a sample of which $I$ saw just $S$ of Toqsun.

The aksakal, who was suffering from some disease of the legs, had sent 3 Andijanliks to meet me. He was so kind as to set aside a room for me in his cotton-cleaning factory, a place well known to many Europeans, as, for instance, Klementz, Donner, Munck, Grünwedel etc. before me. After riding for 2 miles through cultivated and populated country, the numerous murmuring ariqs, luscious verdure and shady trees of which were a pleasant change after the strip of desert, we reached the factory and its spacious courtyard. Our hospitable host had set out three tables groaning under delicious fruit, fresh bread and sweets. In the shade of the trees we stuffed ourselves full of the never-failing pälaw, rice boiled in sheep's fat, with mutton, raisins etc., very greasy soup made of mutton and, "by way of varietyn, boiled mutton.

To-day we made an excursion to Yar Khoto. The ruins have been described by others too well for me to waste time on the same subject, but I must say that I expected something grander in the way of architecture and decoration. These clay buildings, worn smooth and stumpy by rain and wind, certainly look more imposing in a photograph than in reality. The paintings in the vaults are very badly damaged, large pieces of stucco having fallen away. Of the remains, illustrated in Klementz's pamphlet, Fig. I, I should have liked to remove 3 Buddha paintings, but on seeing the destruction I resolved to leave them to more qualified collectors. They have inscriptions that appear to be Chinese, but if the Sarts are to be believed, no Chinese can read them. In one hole all the paintings had been systematically defaced. The Sarts who accompanied me, assured me that this was Grünwedel's doing, which, of course, is nonsense. The building that attracts the greatest attention among the ruins and dominates them is a tower, surrounded by 4 smaller ones at the corners of a square that encloses the tower. Like the other noteworthy ruins, it has been well described by Klementz.

To-day an Andijanlik sold me an old document dug up at Yar Khoto and various other objects from there and from Qara Khoja. The document looks as if it might be Chinese. It is more difficult, however, to secure ancient objects here than at Khotan and the prices are considerably higher.

Seplember 27th. A few years ago Pichan and Lukchun were separated from the Turfan district and now Turfan. form a separate district. There are 1,690 houses in the town with a population of 6,000 . Turfan is at present the seat of a simple Tinguan. There are about 500 shops. None of them are of much importance. Russian cloth goods are well represented; the Andijanliks own 10 shops. Of Indian goods I only saw velvet, and a kind of coarse-meshed lace used for veils by the women. The Sart town is enclosed by a rectangular wall, $2 / 3$ of a mile


TURFAN
Turfan lies in an open, tilled plain. N of the village of Bagra there is a small chain of mountains coming from the $E$ at a distance of $1: 1 / 2-2$ miles. SW of the village of Yar smaller mountains from the $W$ at about the same distance. Otherwise the ground is level. There are no marshy places except fields that were recently submerged. Some strearns and ariqs intersect the ground, but none are of any great importance. There are no villages, but some areas with scattered houses and a group of houses here and there are given the name of villages. From the village of Seidykhan mazar to the village of Lözium there is a fold in the ground, the S part of which becomes a ravine-like hollow. A stream or river with a great deal of water flows at the bottom of it and on either side there is a line of houses, surrounded by many shady trees. A ravine-like small fold in the ground near Minar metchet and a larger group of houses at the village of Bagra. The high tower of Minar metchet is an excellent landmark. Gaolyan is common in the fields. - The Sart town is surrounded by a poor, neglected wall, $21 / 2$ fathoms high, with projections and a well preserved fosse, 2 fathoms wide and equally deep. - The wall of the Chinese town is in good condition, 3 1/2 fathoms high and 19 yds wide in the archway. 3 gates to the $\mathrm{W}, \mathrm{S}$ and E with semicircular projections of the same height as the wall. The inner archway is of baked bricks, the gates of rough timber with iron fittings. Square towers with embrasures for guns are placed on the ramparts behind the crenellated parapet. - Drawn by the author.
long and $1 / 3$ of a mile wide. The bazaar street, $2 / 3$ of a mile in length, runs at a slant from the W to the E wall. It is clean and carefully covered in to afford protection from the scorching sun, but gives the impression of not being very lively. The shops of Dungans and Sarts alternate, but there are far more of the latter. Outside the W gate there is a small group of houses with shops and booths. The number of beggars is large. There are 92
beggars in the workhouse. They are given 2 sets of clothes, one padded, the other for the summer, 120 djin of grain, half wheat and half gaolyan, and 2 lan in cash. In case of death 5 lan are paid for the funeral. Bribes have to be given, however, to get in and sometimes young people are in receipt of relief, while old people and cripples get nothing. The population looks well-to-do and the taxes are paid regularly (there have been several good harvests). The whole town bears the stamp of towns in the south, but it seems lifeless in comparison with Kashgar, Yarkand and Khotan. The Turfanlik makes a good-natured, cheerful and affable impression. Perhaps this may be due to my seeing him after living among Dungans, who are far behind the Sarts in geniality.

The Chinese fortress lies a mile ESE of the Sart town. It is much smaller in size and encloses a space $1 / 3$ of a mile square. The road leading east to Qara Khoja, Pichan and Hami cuts the fortress in two. A short bazaar street leads from the middle of it to the $S$ gate. A chemist, a couple of undertakers, an opium seller and a few fruit stalls, all in friendly collaboration. In the northern part there are the barracks of an infantry in and the yamen of the district mandarin. The garrison consists of $100-160$ worthy representatives of the old military China which is evidently doomed to disappear. A Tungling commands the detachment as well as a cavalry tchi in Toqsun and $1 / 2$ tchi in Pichan. The fortress is in better condition than many of those I had seen. 8,ooo lan are assigned annually for its maintenance. The wall, $3 \mathrm{I} / 2 \mathrm{~m}$ in height, built of unbaked bricks, has 3 gates in the $\mathrm{W}, \mathrm{S}$ and E , protected by semicircular projections; the corner projections have turrets with 4 loopholes each, two of which are for cannon, and smaller projections between them and the gates. The latter are also provided with small turrets. The gates are of rough timber with iron fittings. The inner gateway is of baked bricks, 19 yards wide. A space, 30 ft . wide, runs along the wall, protected by a crenellated breastwork, 5 ft . high. Outside it there is a ditch, in good condition, 18 ft . wide flanked to some extent by the projections at the gates and corners.

The area next to the fortress consists of level, tilled land, intersected here and there by small ariqs. The village of Bagry lies to the W, Minar to the $N$ and Eski Turpan to the E. The esplanade is bounded by the Sart town in the W and collections of houses in the S ; in the W and SW there is a small river that has cut a deep, ravine-like bed for itself. The villages Lözium and Seidykhan maz. stretch out along it, forming a long, shady belt. There are a few buildings, clumps of trees or single trees here and there. In the E and NE the Bagryning su flows $N-S$ in a tiny valley, the eastern bank of which rises slightly. There are no noticeable folds in the ground.

There are the following Shang-ja in the district: 4 for the town of Turfan and the following villages: Yar Khoto too houses and 400 inhabitants and Yar 150 houses and 800 inhabitants on the road from Urumchi; Kurutka io houses and 20 inhabitants, Buluynk 300 houses and 1,000 inhabitants, Bagra 120 houses and 600 inhabitants and Yangi mähällä 20 houses and 30 inhabitants in the N and NE; Chatkal ( 30 Karyses) 400 houses and 1,500 inhabitants. Turpan kre ( 20 Karyses) 250 houses and $\mathrm{t}, 000$ inhabitants. Erh-gung (Lampa gunghsan in the Sart language) 250 houses and $\mathrm{r}, 200$ inhabitants ( 25 Karyses) and Yangi shahr ( 10 Karyses) 150 houses and 400 inhabitants in the E; Yar bashi (20 Karyses) 250
houses and $\mathrm{I}, 200$ inhabitants, Dji (5 Karyses) 60 houses and 300 inhabitants and Löziun 120 houses and 500 inhabitants in the S ; i Shang-ja for the villages of Paka bulaq ( 8 Karyses) and Togung with 150 houses and 450 inhabitants together; 1 for the villages of Yämshi and Yämshi Karys (io Karyses) with 200 houses and i,ooo inhabitants together; ifor Qara Khoja with 1 , 100 houses and $3,500-4,000$ inhabitants; if for Astana with 800 houses ( 15 shops, 2 of which Andijan.) and 3,500 inhabitants; i for Sengim ( 15 Karyses) 150 houses and 500 inhabitants; 1 for Murtuk with 150 houses and 450 inhabitants; and 1 for the villages of Yangi khe and Yangi khe karys with 200 houses and $\mathrm{I}, 000$ inhabitants together.

In the Toqsun area there are, in addition to 2 Chinese and 2 Dungan Shang-ja for the Chinese and Dungan population, i for the town of Toqsun with about 300 houses ( 200 shops); I for Ilan lik (20 Karyses) with 150 houses; 1 for Khodun ( 8 Karyses) with 200 houses and i for Nankho (in Karyses) with 120 houses. In the Toqsun area 3-4 persons of either sex may be calculated per house.

In the Turfan and Qara Khoja area:


The total quantity sown excepting Qara Khoja is about 4,500 dadan.
In the Toqsun area:

| wheat | $-1 / 4$ | part, | yield | 8 | fold |
| :--- | :--- | :--- | :--- | :--- | :--- |
| gaolyan | $-2 / 4$ | $"$ | $"$ | 15 | $\prime \prime$ |
| cotton | $-1 / 8$ | $\prime \prime$ | $"$ | 20 | $\prime \prime$ |
| kunsjut | $-1 / 8$ | $"$ | $"$ | 2 | $"$ |

The total quantity sown is about 1,600 dadan ( 1 dadan $=12$ poods). Grain is sold, especially wheat.

Grass is grown on a very small scale throughout the Turfan district. Straw is used as fodder. ${ }_{17}, 000$ tan of grain are levied annually in taxes in the whole district.

The annual output in the Turfan and Pichan districts together is: cotton 100,000 poods - formerly 100 djin of cotton fetched 5 lan, now the price is 7 - 10 lan; wheat $I^{2}$ million poods; gaolyan 4 million poods; grapes $1 / 2$ million poods (about roo,ooo poods are dried for raisins); melons and watermelons for 48,000 lan; wool 200,000 poods and 100,000 hides (sheep).

In the Turfan district there are 12 factories for dressing cotton, the machinery having come from Moscow. The output of cotton is so small that the factories are idle for a great part of the year. There are also 160 flourmills and 15 oilmills and in the Toqsun district I5 flourmills and 3 oilmills.


A drummer giving the signal for a manoeuvere at Turfan.

The mountains N of Turfan are said to contain much coal. The local population is engaged in coalmining in no less than 15 places about a day's journey N of the town. There is said to be coal, too, in the mountains all along the road to Urumchi. There were copper mines, but they have been abandoned. At present copper only occurs in these parts close to Sajapu on the road to Urumchi.

The quantity of cattle in the Turfan and Pichan districts together may be estimated in round figures at about 100,000 sheep and goats, 10,000 horses, 10,000 donkeys and 500 camels. The average price of a sheep is 3 , of a horse 18 , of a donkey 4 and of a camel 30 lan. Workmen earn I tch. 5 fyn and free board daily, women $6-7$ fyn and free board. During the summer it is usual for workmen to seek employment at Kucheng and Urumchi, where they are paid 3-4 tchen, women 1 tchen 5 fyn in addition to their board. The rather effeminate Turfanlik, who is accustomed to heat, prefers to spend the winter in his own district.

For land of the I category 7 shin, of the II category 4 shin and of the III category 3 shin are paid in taxes per mou (a mou is supposed to be 60 sq . arshins). I shin is equal to 4 djin. The taxes are levied in kind, $2 / 3$ gaolyan and $1 / 3$ wheat. For fruit the taxes are paid in cash.

According to one informant, I dadan ( 12 poods) of grain is paid in taxes for 20 mou and the same quantity is used for sowing. On cattle 3 fyn per lan or 3 per cent is paid in bazaar tax.

The extortions of the mandarins seem to be far more restricted here than in the southern districts and do not exceed 20 per cent of the taxes. The reason is probably the proximity of Urumchi which makes it easier for the population to lodge complaints against illegal taxation. There was a certain amount of dissatisfaction among the local people owing to the difficulties raised by the mandarin in granting permission for pilgrimages to Mecca. He is said to have refused permission to several hundred Sarts on the plea that a great deal

of silver was taken out of the country. They declared that in a year's time they would start without permission.

The Tungling Djan, a man of 50 , who had served for 33 years in the \#lu in" troops of the Sinkiang province, granted me an opportunity of taking some photographs during their training. On his arrival the battalion, consisting of 100 men (including N.C.O.s) was drawn up in two lines facing each other at a distance of about 20 paces. Each platoon has its own flag, carried by an N.C.O. For each of the 4 of the shao battalion there is another red flag with an inscription in white, carried behind the shao guan by one of his hupings. Besides there were 2 lilac flags with the commander's name and one blue one. At the commander's blue and red tent there were $5-6$ signalling flags with long, light staffs stuck into a rack. After a very long signal given by the commander with a yellow flag the men began to move, both lines advancing in goose-step with an officer at their head, retreating or approaching an imaginary line between the two rows in regular curves. It was the same snakelike movement that you see in round-about riding. When the flags approached each other, they were lowered slowly. The commander in the meantime stood next to the drum which he beat at intervals. The men faithfully followed the path taken by the officers. The commander again waved a flag for a long time and the men formed small groups facing each other at the double, each platoon separately. The space between them was very well calculated. After the next signal the lines were formed anew. The rifle exercises that followed were led by a drummer with a drum on a stand between the lines. The numerous exercises with breechloaders were performed with a certain amount of precision, but lazily and at long intervals. When one line fired a volley, the other lowered its flags and raised them again with a cry of victory to show that it had suffered no losses. After the volleys running fire from one flank to the other was carried out with wonderful precision.


Manoeuves at Turfan. Rifle fire.

Then a manoeuvre was carried out. 5 horsemen with large flags represented bandits fighting with the advancing or retreating troops. The latter formed platoons in order of reserve columns. At a sign from the shaoguan, the leading platoon in each company fired and then took the place of the last platoon at the double. The next platoon advanced at the double at a signal from the shaoguan's stick and fired a volley and so on. The robbers galloped about in despair, almost running down the leading line.

Firing in company of column (the companies consisted of a platoon) was carried out in the same style with the length of the front as the range. The place of the leading company was taken up at the double, a volley was fired almost immediately and the place at the rear was taken up.

They then formed a square, firing in four directions at the unkillable robbers who galloped in a circle. The platoons at the back advanced at the double through a passage in the middle of each side of the square, took up position and fired at a signal from the platoon flag and so on interminably. The lines were re-formed again opposite each other and at a given signal the flagbearers rushed forward with flags lowered towards each other. There was a short engagement and they retired at the double.

Ignoring all that is childish in these exercises with their theatrical effects, some good qualities in the Chinese soldier must be conceded. The evolutions are performed with precision and all that is necessary according to Chinese ideas is carried out very exactly without words of command, but exclusively by signals, which shows that each man knows what he has to do. Running fire along the front is carried out with almost mathematical precision. Although the detachment consists to a large extent of old men and opium smokers the march at the double is very elastic. Intervals and distances are calculated with Chinese precision even during evolutions performed at the double. There is complete silence among the men during evolutions.

The target practice, which I watched, was beneath criticism. The range was 175 paces

and the target, rather less than a man's height, was put up at the side of a ditch. The number of hits was below to per cent. At the end the commander fired 3 misses, raising clouds of dust, and after each shot the flag was waved and the drum beaten to indicate a hit. He looked rather sheepish and the faces of the surrounding Sarts registered keen delight.

After distributing the more or less obligatory presents to my pleasant host, Ahror Khan, his charming son and his little invalid daughter, we started this morning. The start was slightly delayed by some arrangements made necessary through my having found a new cook to replace the indispensable Izmail. The new man had learnt to cook bad food with two Russian consuls at Urumchi. This was nothing to brag about, but at any rate it was something, though not to be compared with Izmail who had become a master of his art by helping his mother cook pälaw in the bazaar at Yarkand and was only employed for a short time by a third-rate Russian merchant. At all events I engaged Hashim on the recommendation of the aksakal. It was characteristic of the Sart character that the aksakal assured me that I need not hesitate in engaging the man and giving him an advance of 20 lan, but when I suggested that he should go bail for him, he flatly declined and he would not even be responsible for a quarter of the amount - a suggestion I made more with a view to testing him than in earnest.

The road to Qara Khoja is one of the dullest in existence, with the exception of a mile and a half E of the Chinese town. We rode past the extensive ruins of Eski Turpan a fairly large area surrounded by the remains of a huge clay wall and filled with clay walls, towers, lumps, blocks etc. of every imaginable size and shape. It is no easy matter to find your way among this chaos of clay and I will not attempt to describe it. The tall tower of Minar metchet rises close to the ruined town and resembles a modern factory chimney: more than anything. Its surface is covered with bricks of varying thickness which form designs in straight lines. Inside, the building has fallen to pieces and is not remarkable either from the point of view of size, architecture or decoration. The date on which the


Ahror Khan, the Russian
aksakal at Turfan, with servants and Sart visitors.
mosque was built is marked on a black stone standing against a wall with an inscription in Turki and Chinese. My companion pretended that he was able to decipher the inscription, which I doubt, and asserted that the building was 180 years old. On the left, about $2 / 3$ of a mile from the road, we caught a glimpse of the white cupola of a mosque embedded in verdure. This was the Appag Khoja mosque built in memory of a visit the great man paid Turfan. About $2 / 3$ of a mile further east we passed the Sugul Khoja mazar on the left, a mosque-like building and immediately after, on the right, a similar one standing on the edge of the cultivated land and seemingly guarding it against the sand and gravel of the desert.

Here a barren plain begins, its surface being strewn as far as we could see with karys wells surrounded by mounds of gravel and sand. A small chain of red mountains coming from the E appeared on the left at a distance of a few miles. The village of Bujluk, smiling in its verdure, was visible at the mouth of a gorge. A narrow belt of green extends from it across the dark plain of gravel until it reaches the Turfan oasis. On the right the oasis continues in the shape of a narrow tongue that seems at a distance to run parallel to our road. Beyond it is a streak of silver, which could easily be taken for the sparkling surface of a lake, but is said to be only a large deposit of salt. (No one has heard of Lake B)djanta and I am assured that between Choltagh in the S and our road there is no large sheet of water.) Choltagh rises in the distance beyond the streak of white. The löss had turned to sand strewn with gravel and finally pure sand in long undulations in a SE-NW direction.

Almost to miles from the edge of the oasis stand the massive ruins of some kind of tower among the sand dunes of the desert. It is hard to guess what the building was. Now it is a huge block of clay rising from the sand. The name of the ruin is Kotu Yoghan - or, in translation, "the big rump", which sounds much less distinguished. A small sarai lies

The tall tower of Minar metchet near the
ruined town of Eski Turpan.

at its foot with water from a well. The dunes grow less and gradually disappear altogether. 5 miles E of the ruin we passed the Avat sarai with a well. Some tilled fields of the Avat oasis which lies a little over a mile further on, come up to this place. Its $40-50$ houses lie on one of the 3 branches of the river coming from the gorge in the N .

I I/3 miles from there we reached Astana with a bazaar containing a couple of dozen shops. Close to it there is a large mazar, where the sultans of Lukchun rest under the vaulted roof of a mosque in vaults ornamented with tall twisted columns. One of the tombs is encased in green glazed bricks, and another, holding the body of Sultan Alpata Khoja, the famous man who conquered Dachianus, destroyed Idygot shahr and finally fell a prey to one of Dachianus' men, groans under the forest of trophies with which it is decorated. A performance by a yelling Sart with a badly trained goat, painted red and decorated with bright flags, almost scared our horses out of their wits. We had the greatest difficulty in getting them past the danger-spot in the narrow street with blows of our whips and coaxing words, to the delight of a large audience of women and children.

On the right of the road, as it leads out of Astana, lies the picturesque ruined town of Idygot shahr, of imposing dimensions. We rode about in various directions for a couple of hours among the ruins that extend for I -I $\mathrm{I} / 2$ miles. Everything was in an exceedingly bad state, which is not surprising when one knows that during the two years' sojourn and excavations of the Grünwedel expedition it recently suffered fresh destruction. Of the paintings on stucco there is practically nothing left. The size of the walls and some of the buildings, colossal in the case of the walls, is astounding. The town was evidently divided into districts separated by walls, the one in the centre that is pointed out by the local people as the palace of the mysterious Dachianus, dominating the rest of the town.

Resting against the outer wall of the ruined city stands a modest little inn, where like many Europeans before me, I stayed. Such jokes as »Grand Hotel Sabit», „Räuber Höhle», "Cuisine recherchée», "Puces à discretion» etc. decorate the greyish-white walls and are


The Appas Khoja mosqui
near Turfan.
carelully preserved as valuable mementos by the humorous owner of this popular resort. a boastful and swaggering Sart. The inn belongs to the village of Qara Khoja with slightly over $r$, ooo houses, sitwated on an arm of the river Uluk or 'Tchong su. Qara Khoja possesses 28 water-mills and a mill for kunsjut oil; in Astana there are 2 water-mills and in Avat I .

Fo-day I visited the ruined city again, this time under the guidance of an excellent ciccrone, my host. He took me to all the buildings that had attracted my attention yesterday. It looked as if everything had been searched and examined by former expeditions. There are fertile fields among the ruins and the gaolyan is in ear just now. It may take years, but certainly some day the fields will swallow up the last remnants of this once large and powerful city.

From Idygot shathr we rode to Astana, where there is an interesting, massive ruin with small, vaulted holes running outside it in 3 storeys. Practically nothing remains of the decorative paintings.

October ast. Early this morning we rode in a cold, penetrating north wind to Murluk and Singim Toyuk Aghiz. The former, in particular, is still worth a visit in spite of all the clestruction it has village. suffered. 'The very badly damaged wall paintings (entirely broken off for large expanses) still give an idea ol what there was here in days gone by.

We left in the afternoon, which was easy thanks to the arbahs that had come yesterday. Having ridden for 7 or 8 miles through a barren desert we reached the village of Toyuk.

October 2nd. Early this morning we paid a visit to the $\quad 7$ brothers' mazar", situated on the mountain Lamjin slope $N$ of the village. The entrance to the cave in which they lie is said to be guarded by village. a dog wrapped, as they are, in eternal sleep. Nothing is visible except a mosque comparatively richly decorated with carpets, banners, curtains etc. Opposite the entrance there
is a railing, behind which the entrance to the tomb, carefully screened by curtains, is supposed to be. The mullah draws aside the curtains with great ceremony and you see the dog in the shape of an elevation in the floor covered with glazed tiles. No European has probably been allowed to go any further and there can scarcely be much to see behind the curtains which cast a mysterious shade over the cavity. For a long distance before the holy place and beyond it the faithful do not journey except on foot.

From the mazar we rode some way up the gorge and viewed the ruins of destroyed Buddhist temple caves. They remind one in the method of construction and the choice of a site of the caves near Murtuk, but are in a far worse condition.

The mandarin in Turfan had given me a very curious companion, a jain with the physiognomy. of a real brigand. After a couple of days' journey he told me how he had robbed a merchant and had cast suspicion on the keeper of a sarai, who had to sell everything he owned to make good the damage. Now he rode about as a representative of law and order with a long chain at his saddle in case of need and an iron riding whip plaited with leather.

Toyuk and the village of Subashi a little higher up the same river belong to the Pichan district. The former has about 350 houses with 1,200 inhabitants and 50 shops (I Andijanlie), the latter no less than 5 arias with only 40 houses and 150 inhabitants. Toyuk, and especially its upper part, lies very picturesquely at the mouth of a narrow gorge on either side of a rapid little river. The lower part covers a very narrow strip of land with the river in the centre. The banks are comparatively sharply inclined, at any rate in places. The houses in the densely populated village rise above each other, climbing up the slope of the bank. The river is reached by narrow, winding lanes and is shaded by trees. The inhabitants look clean and pleasant. The houses are fairly large and there are vaulted rooms that are airy and cool in the heat of the summer. As we rode out of the village towards Lamjin, young Sarts, dressed in white, stood in a row with tambourines and sang. This was the preliminary to a wedding. The song was echoed by the mountains and was accompanied by the roar of the river. The terraced village with its crooked walls, old-fashioned lanes, verandas and terraces looked charming in the sunshine. Decidedly the most attractive Start village I had seen. The ground is so restricted that it is only possible to grow fruit and vegetables. Large quantities of grapes are grown and a large percentage of the raisins that are exported from the Turfan district come from Toyuk. Fodder is unobtainable and grain is bought from Singim, Khando, Lukchun and Kuching (from the latter place a great deal of grain is sold to the Turfan district, including Turfan itself). Many sheds of unbaked bricks with broken walls surround Toyuk and are used for drying grapes. In Toyuk I was offered a copper coin of the time of Catherine II and I was assured that it had been found during some excavations among the ruins.

From Toyuk the road runs over the same plain of barren sand, löss and gravel. On the left we had the same red mountains Qizil tagh and on the right at a great distance a few trees and houses. After $71 / 2$ miles to the ESE the road divides. A track continues in the same direction towards Sirkip which is visible at a distance of a few miles. A high clay ruin, similar to the one at Kotu Yoghan, shows among the verdure. In the SSE Yankhe
is visible and in the SE the large villages of Lukchun. We turned NE and soon af er N into a gorge, from which a river issued, 3 fa: homs wide and 0.25 m deep. About $\mathrm{I}_{1 / 2}$ miles from the parting of the roads we passed the Lamjin aghiz oasis wi .h only a few houses. On the left at the end of the village lies the Bazar of the Seven Sisters and halfway up the mountains some veins of coal. The mountains on either side of the gorge are mostly composed of a conglomerate in red or tinged with red. A little grass grows close to the river, otherwise there is no vegetation. The road is very sandy. 40 metres from the village we passed a fairly large block of stone in which Buddha figures had been carved in relief in various positions, unfortunately also completely dilapidated. Just beyond there are fields, willows, poplars and grass along the river. There was a solitary house on the left. About $2 / 3$ of a mile beyond, a side-gorge opened up on the left in a NNW direction. At the bottom of it there was an extensive and populated area - the oasis of Lamjin.

The road, still very sandy, led into the valley. We passed through a tunnel, $20-30$ yards long, dug in a sand-hill, and found ourselves once more on a firm road leading between tilled fields and shady trees to the Lamjin bazaar. The distance covered to-day was about $15 \mathrm{l} / 2$ miles. The road is quite passable for wheeled traffic, though at the beginning of the gorge it goes for a mile or two over very deep sand. It crosses the river several times. The bottom is firm and the ascents and descents present no difficulties. In the oasis of Lamjin we reached the large arbah road that leads over Subashi and Singim to Turfan.

In the Lamjin oasis there are about 10,000 mon of fields with 270 houses and 600 adult inhabitants. The bazaar is insignificant. There are about 15 shops, of which only 9 are open. The worldly welfare of the population is attended to by i Shang-ja, i mirab and i keize (assistant to the Shang-ja), while their spiritual welfare is looked after by an ahun, subordinated to the äläm thun in Lukchun. (There is a similar äläm ahun in Turfan and there are said to be others in all the large centres in which a Mohammedan population predominates.) The oasis contains a factory for dressing cotton, 88 water-mills, 8 primitive presses for pressing kunsjut oil. Wheat ( 5 -io fold yield), gaolyan ( $8-15$ ), American cotton (2-2 I/2), tobacco (100), kunsjut (10) and barley ( $5-10$ ) are grown; but principally wheat, gaolyan and cotton. The annual cotton crop amounts to $50-60,000 \mathrm{djin}$. The grain crop does not suffice for the population which has to buy supplies from Khando, Singim and Kucheng. Cotton and tobacco are sold. There is said to be a good deal of livestock in the oasis.

October 3 rd.
The Lamjin oasis is 2 I/4 miles from the bazaar. On the right, close to the road there are houses and trees belonging to the village of Tchuankr, situated on the same river from the north as the considerably larger village of Khando, the southern part of which lies near the road. This part of the village, which forms a large $S$ with the river further $N$, consists of small oases separated by barren patches. The road over Kob Mar and Builuk dawn to Morokho starts from Khando. At a short distance from the oasis the sandy ground is covered with a thin layer of gravel that makes it fairly firm.
$3 \mathrm{I} / 2$ miles from the edge of the oasis the plain, which had so far been level and slightly inclined to the south, became uneven and formed sand-hills or very low disconnected
mountains. About 3 miles further we passed a smoky cave, 1 i/2 sq. metres in size, dug in a sand-hill. It marks the half-distance. A Sart had lived there for years, making a living by selling fruit to passers-by. - From here the ground rises slightly and the fall that was towards the $N$, is now $S$. We crossed a rise in the ground going $N$ from Qizil tagh. We had a good view to the east from the crest, the oasis of Pichan, enveloped in green trees, showing up at a distance of about a dozen miles. The valley, a few dozen miles wide, with a gravel surface, lying between Karlik tagh and Qizil tagh formed a large triangle in front of us to the $E$. In the $S E$ it is bounded by sand-hills tinged with yellow and light red, Kimtagh which succeed Qizil tagh, leaving an opening between themselves and the latter. In the N , i.e., to the E of us, the Qum tagh sand-hills are followed by a long chain of hills, between which and Karlik tagh, which disappears northward, there is a wide exit. In the SE on the mountains, apparently not far from the road from Sirkip to Pichan, there is something that resembles a ruin. My guide explained that it was a ruin like the one I had seen at Kotu Yoghan. $3 \mathrm{I} / 2$ miles from the cave we completed the crossing of the ridge-like elevation and $I / 3$ of a mile later we crossed the first of 4 dry water-channels going in a NW -SE direction. There is rarely water in them, I was told. I $1 / 2$ miles from there we came to the boundary of the Pichan area, tilled, but still very sandy, and 2 miles further on, after crossing a small river flowing in a valley $210^{\circ}-30^{\circ}$, we entered the town. The distance covered to-day was about 16 miles. The road was good.

Pichan, surrounded by a neglected crenellated wall, 3 fathoms in height, with curved corners, covers an area of $I / 3$ of a mile square. A Shenguan, subordinated to the mandarin in Turfan, resides in the town. Besides ordinary mortals he has the Wang of Lukchun under his supervision and protection. It is some time since this now humble prince was deprived entirely of all temporal power. He has neither the position of a judge nor even the right to levy taxes. The Bogdykhan has awarded him the highest rank in the Chinese hierarchy and allows him a pension of a few hundred tan of grain annually - and that is all. As he is a large landowner, however, he enjoys a certain importance apart from the splendour and prestige that his dignity gives him in the eyes of the faithful. The Chinese do not set much store by this, as is proved by the fact that a Shenguan who was dissatisfied with some arrangements made by the uncle and guardian of the prince, had him punished by whipping like an ordinary mortal. The present prince is in Peiping by order of the Bogdykhan.

The Shenguan's district consists of the following Shang-ja areas; I. Pichan with the surrounding villages. In the SW Shubeigo with 40 houses ( 4 Chinese); in the S Ehrgung 20 houses; in the ESE Hoshetun 6o houses; in the NE Tugung 30 houses; in the E Huihuikäi (bazaar with 30 shops) 107 houses; in the N Sankung 30 houses and in the NW Khovan 20 houses; altogether, including the town, 620 houses. In the town there are 37 shops, r pawnshop and 3 sarais ( 33 Dungan and 25 Chinese houses, the rest Sart), 4 cavalry men of the Chik-tam lianza. 17,000 tan of grain, 200,000 djin of hemp and 50,000 djin of cotton are produced annually in the oasis. The stock of cattle amounts to ab jut 4-5,000 head, including horses, horned cattle and sheep. II. Kandu with a couple of hundred houses ( 17 Chinese, 24 Dungan) covering an area of 20 li in length. There are I metchet and I miao
in the oasis. Wheat, cotton and apples are grown. The output is said to amount annually to about 1,700 tan of grain, $20,000 \mathrm{djin}$ of cotton and $10,000 \mathrm{djin}$ of grapes. - Grain is purchased from other places (?). III. Tchuankr (Ehrgung in Chinese) with a few dozen houses. It produces about 1,200 tan of grain. III. Shuga? IV. Lamjin. Produces 2,400 tan of grain and (according to Chinese statistics) 300,000 djin of cotton. V. Sirkip with 102 houses ( 7 Chinese, 4 Dungan), 10 li in length. Annually 5,000 djin of cotton, 20,000 djin of grapes and 2,000 tan of gaolyan. VI and VII. Sypansu and Dykhansu which together form the oasis of Lukchun with about 2,500 houses, 42 shops (io Dungan, 7 Chinese). Cotton, grapes, hemp, kunsjut, wheat and gaolyan are grown. The annual output amounts to 100,000 djin of cotton, 200,000 djin of grapes, 34,000 tan of grain. The stock of cattle is said to be not large (?). VIII. Subashi with a couple of dozen (40?) houses and 150 inhabitants. IX. Toyuk with 370 houses and $\mathrm{r}, 200$ inhabitants and 6 shops. Produces 500,000 djin of grapes. X. Chik-tam.

The annual taxes of the district are said to amount to 7,000 tan of grain and 27,000 lan (?). Cotton, raisins and hemp are sold. - As regards minerals in the district, there is supposed to be coal at Kok Yar. It is said that there is gold in a gorge in the Ja'rsan (Kok Yar?) mountains, near Semityenza. There is supposed to be a road through this gorge to Mutikhö (Morokho) on the »peilu» road. S of Lukchun there is said to be stone (crystal?), white and smoke-coloured, that is used for spectacles.

October 5th. To the NE the Pichan oasis extends $31 / 2$ miles from the town. The landscape is the same Fort Chiktam all along. Single houses, clumps of trees, and fields in which there is less gaolyan than, for (Tchigiei instance, at Lamjin, but hemp is very general. Here and there a group of houses. The trees in Chinese). are far more scattered than in other oases that I have seen. Beyond the cultivated area there is loose sand, the surface of which very soon becomes covered with gravel and fairly firm. The ground slopes to the N and NW, forming a long, slight valley parallel to our road.

4 miles from the edge of the oasis we crossed a dry water-channel that goes in a $\mathrm{S}-\mathrm{N}$ direction. Near it, about a mile to the left of the road, stands a house, from which a narrow belt of trees runs to the edge of the oasis. We rode close to a long chain of very low gravel hills on the right, which, after a gap, form a sort of continuation of the yellow sand-hills $E$ and SW of Pichan. 3 I/2 miles from the river bed we passed a sarai on the left with a couple of patches of field, situated at the foot of the ruin of some kind of signalling tower built on the crest of a gravel hill. After a short and very sandy stretch the ground on the left of the road was covered with sparse reeds. 4 miles from the sarai there is grass on both sides of the road. I $1 / 3$ miles further on we rode through two groups of houses of a small village, "Baka karez", about I/2 mile from the road. 5 miles further, on the right of the road, there was another ruin like the first. On the left we saw a small village, Tugez karez, in the valley with 4 houses in two groups. A few miles later we came to a much larger village, Karez, in the same valley. A mile from the tower, in a semicircular curve of the hills on the right, lies the village of Taze with io houses and a mazar. The road now took us among sand and gravel hills. $2 \mathrm{I} / 2$ miles further on we again passed a couple of houses and a mazar enclosed on both sides of the road by small sand-hills. At a distance of a few miles we

caught sight of the 3 frowning crenellated walls of Chiktam, crowned with a small tower. After riding 27 miles we reached a sarai at the foot of the $W$ wall of the fort.

On a low hill scarcely $2 / 3$ of a mile S of Chiktam stand what look like the ruins of a small fort. Just S of them there are traces of houses built in a long, narrow row with rather larger buildings at either end. Between them and the mound there are traces of another two buildings and from the long, narrow ruins there is the ruin of a slightly curved wall. It looks approximately like the figure, if viewed from the mound.

Grunwedel made excavations here, too, on his journey to Hami, which encouraged the local population to continue them. I bought a few small clay medallions with Buddha images from them and 4 pages of paper covered with writing. Judging by the condition of the unbaked bricks and the paper, the
 ruins cannot be very old.

At close quarters the fort looks anything but threatening. The walls are weak (Andijan type), the two lower ones having no passage to the moat. The area it self is narrow and is further encumbered by dark hovels built along all the walls, which are supposed to serve as quarters for the garrison. You can scarcely turn a horse round within the walls and yet the adaptable Chinese have found space for a temple with an entrance enclosed by long clay walls. A cavalry in was originally stationed in this fort that measures no more than $160^{\prime} \times{ }^{1} 54^{\prime}$. Under changing influences among the higher authorities this force was gradually reduced to $1 / 2 \mathrm{in}$, 1 shao, $1 / 2$ shao and now consists of only 12 men, who represent a shao. II of them had been sent to Turfin to take part in the manoeuvres I had witnessed and a solitary defender was left as the garrison of the fort. There are no Mauser rifles.

Near the W wall of the fort there is a little village of 18 houses ( 9 Dungan, 7 Sart, 2

Chinese), 2 shops, 3 sarais, 1 mapoza station, water in a river. - In the $S$ a Dungan village of 18 houses with 1,400 sheep. - In the SE Tsayenza of 6 houses. - In the E Khodiakar of 3 houses (Sart). - In the NE Zag'r kar of 4 houses (Sart); Seidy Pakhiakar of 2 houses and Mullakar i house, all Sart. - In the N Tchaudiakar of 12 houses (9 Sart, 3 Dungan), 20 horses and cattle; Tchandiakar of 6 houses (4 Sart, 2 Chinese); Madiakar of ro houses (9 Sart, I Chinese), Khadiakar of in houses (8 Sart, 3 Dungan). - In the NW Sitienkar of 4 houses (3 Sart, i Dungan). - In the W Madiakar of 4 houses (3 Sart, I Dungan); Vandia kar of 3 houses ( 2 Sart, I Dungan). - The total output of grain in the Chiktam or Tchiktäi area is said to amount to 2,290 tan of gaolyan, barley and wheat.

October 6th. Yanche station (Toghraq dar).

We started at 4 this morning in complete darkness. At daybreak we were on a barren gravel plain, the ground being slightly undulating. Our course lay NE (later NNE) at an angle to the Tian Shan mountains (Karlik tagh), as yesterday, i.e., their curve to the $\mathbf{N}$ was much lower. In the SE we still saw the long low gravel hills that we had on our right at our start.

After 40 li we passed a sarai with nothing but a well. At $5.30 \mathrm{p} . \mathrm{m}$. the ground became uneven. Soon afterwards darkness set in, so that we could not see much besides the hills, up and down which the exhausted animals dragged our loads, as we crossed low mountains close to the Tian Shan mountains.

At $4 \mathrm{p} . \mathrm{m}$. we came to the Yanche sarai, a ride of 12 hours. The local people call it 180 li which is probably a slight exaggeration. At all events the journey is tiring. The ground is firm, but the gravel gives way slightly which makes it hard work. The arbahs took 16 hours and the horses were so exhausted that we had to unharness them from one arbah and use 7 horses to pull the vehicles up in turn. You cannot help admiring the drivers, naked to the waist and wearing thin Chinese shoes, who do the whole distance on foot without a moment's rest and with a long whip in one hand. After a few hours' sleep out-of-doors under the arbahs they have to tackle another 140 li at daybreak. They show not the least sign of fatigue. They are always smiling and treat their animals kindly. They do this work day after day and feed on bread and one cup of lapsha (a kind of vermicelli) without any meat.

In Yanche there are a large sarai and a mapoza station, a well with drinkable water and 2 springs with salt water. There are said to be 2 small patches of water in the neighbourhood which I could not see owing to the dark. Reeds grow round about, and about 30 horses from various mapoza stations were grazing on them. - The road is seldom used by arbahs in the summer. In the winter about 300 cartloads call at the sarai. About 5,000 camels pass every year, mostly eastward with raisins and cotton. - There are such strong burans that traffic has to be suspended; they always come from the north. In September they are common, occurring every 5 days and lasting several days. In the spring, too, they are common. There is snow from December to March.

Immediately after daybreak we moved off again in the same ENE direction. A few miles ahead of us the light ribbon of road seems to ascend the dark gravel slope. On the left in the cauldron-shaped valley we saw reeds and grazing horses. The mountains shutting it in seem to run into each other in front of us. After a climb of 4 hours we reached the highest point of the day, Huidjunza dewan, situated on the top of a gravel hill. The descent was along a gorge, 75 fathoms wide, the gravel bottom of which was covered with stones, mostly of small size. The granite mountains on either side are not very high and are dark in colour. 7 miles below the pass there are a sarai and the mapoza station Hui-chingtzu. NE of it there is a cauldron-like valley, brick-red at the bottom. There are said to be large salt deposits there, round which yellowish-red grass grows. - At Hui-ching-tzu there is a well. There are westerly buran in spring and autumn 5-6 times a month. There is snow in November and December which melts at once. - The stony road still took us down into the valley. We reached the bottom in about $33 / 4$ hours. The road then ran over level ground. We got to Utungvotzu station 1 1/2 hours later, an uninhabited sarah, a large mazar (Dungan, 8-10 years old) and a mapoza station. There is a spring with brackish water. The burans from the N are very strong and sometimes continue for several days without cessation. In spring and autumn they occur 6-7 times a month. There is no snow.

A severe storm that had raged since yesterday and impeded the arbahs exceedingly, forced me to give up the idea of going by the Chin-ku-ching-tzu sarai today, the last point with water before reaching the mountains. The road ran in an E and ESE direction across the valley, on the NE edge (?) of which the sarai is built. The road is level and good. Low thorny plants grow along it. On the right of the road there are said to be large salt deposits, but I saw nothing from the road but dry grass that looked brick-red, especially at a distance. Towards the end of the day we passed a narrow belt of deciduous trees turning yellow, on the right. Both from Utungvotzu and from here the cauldron-like valley seems to be enclosed on all sides by mountains. The wide opening to the SSW, indicated in Grum-Grzimailo's map, could not be found. The mountains are higher in the W, NW, N and NE. In the S and SSW they look yellow through field-glasses and seem to go in very slight undulations, obviously sand-hills.

4 roads meet at Chin-ku-ching-tzu. The main route from Kuchens and Kami, the less frequented road to Turfan and the rarely used road over Tola dawn to "peilu" and Barkul. Here there were 3 sarais, a post of 5 cavalrymen from the lianza at Lodun and a mapoza station. 4 wells supply plenty of slightly salt water. There is snow usually from October to February, 4-6 inches deep. Very strong burans from the W. In spring and autumn they are common. They occur several times a month and at times for several days on end. They also occur in the winter, but rarely in the summer. 20,000 camels pass annually in both directions and about 3,000 arbahs. The road over Turfan is only used in the winter. The snow in the region of Tashitow is said to be so deep that the Kuchens road is not used during November-January.

October gth.
We left at 5.30 a.m. in a NE direction. It was cloudy and cold. A penetrating wind Campat chilled us thoroughly. About $2 / 3$ of a mile from the sarai we passed a belt of thin, Toteshyenza solitary trees. These were soon succeeded by low toghraq and the ground, on which vegetation became scantier, went in mounds, the highest being a couple of metres. On the right we passed a small ruin. Its thin walls indicated that it was of no great age. About 2 I/2 miles from the sarai vegetation ceased completely and we entered a plain of gravel with a very slight rise. The road here was due E and continued in the same direction with slight deviations to the ENE up to the foot of the mountains. The first spurs of the mountains were reached on the left about 10 miles further on. Two or three small stone cairns that we passed served, no doubt, as road signs. On the left the mountains drew nearer in a $\mathrm{W}-\mathrm{E}$ direction after enclosing the valley from the W in a wide curve. During the last $4-5$ miles the gravel had become strongly mixed with stones.

I searched in vain during the whole journey for the wide opening indicated on GrumGrzimailo's map. About 2 miles from the first spurs of the mountains the latter approached from the south on the right and the road led us into a gorge, about roo fathoms wide, at the bottom of which we noticed a dry water-channel. The mountains on the left were rather higher than those on the right, but not of imposing size. They were very dark in colour, at times black, and piles of washed-down small stones, apparently in the nature of easily split slate, lay in the folds. In a couple of places the small stones were of the same green colour as those I saw near Otshal. The bottom of the gorge was stony, though there were no large blocks of stone. A wheeled vehicle could probably pass over the stones. About 8 miles from the beginning of the gorge it widens and forms a valley, i I $/ 3$ miles wide, enclosed by mountains on all sides. The vegetation, which had been almost nonexistent, began again with inedible, low, thorny grass, and a few miles further on there were reeds and tall, coarse grass growing in small patches.

2 miles from the beginning of the gorge we encamped near the ruins of a small, deserted sarai. Water (for at least 100 animals) is available from a small spring and the coarse reeds are tolerable fodder for horses. We were thoroughly chilled by the wind which had not abated. Furs and leather trousers were got out, wood was broken off from the ruined roof and soon we were all squatting round a bright fire in the lee of a couple of rather decrepit walls. The mountains enclosing Toteshyenza, especially from the $S$ and $N$, were already considerably larger, though they did not equal the Tian Shan mountains $W$ of the Kucheng meridian in size. Considerable sand-hills had piled themselves up at the foot of the mountains $S$ and $N$ of our camp, though no large patches of sand were visible anywhere. - The rise of the ground was slight during the day.

October Ioth. During the night the temperature fell to $-6.8^{\circ}$ R., but towards morning the wind Mapoza sta- dropped. The road goes on in an ENE direction towards a valley between the mountains in tion Shang the E and S, where they come together. The ground rises slightly. The road is level and Laibat- good, with only a few stones. Having ridden a little over 4 miles, we entered a narrow chyen. gorge between insignificant spurs of the mountains that had drawn near from the NNW and WSW. On the left the dark rock was denuded, while on the right the surface was
covered with a layer of earth, on which grew low grass. The road followed a slight, rather stony, dry water-channel and made small bends, though the main course remained $\mathbf{E}$. The rise in the ground became more marked, though never steep. After 5 miles, of which the last 3 had been very stony, we reached the crest of Tole dawn, almost the easiest mountain pass I can remember crossing. Denuded mountain ridges in a $\mathbf{W}-E$ direction were only visible in the N , otherwise all the mountains and hills were covered with grass. The ridge in the $S$ which we had had on our right is more considerable than the others and seemed to run a couple of dozen miles eastward, where it formed a slightly higher pile of mountains. Its slope facing $\mathbf{N}$ has conifers growing on it here and there, the trees going halfway up the mountain. In the N we saw horses grazing in a valley that disappeared behind mountains in the W and in the E a considerable, long valley. It appeared to be a mile or two in breadth and to spread out, at the end of the mountain ridges running $\mathbf{E}$, into an open plain in which a blue patch indicated the position of Lake Barkul. In the distance beyond the lake a mountain ridge rises, running in an opposite direction to that of our road. The slope of the ground eastward of the pass is gentle and the road across the grassy slope is good.

During the descent we passed a stone column, about 2 m high and 0.3 m wide, like those I had seen between Dawanchin and Urumchi. Very close to the pass I noticed the ruins of a small square stone building, obviously very old. Large herds of grazing sheep could be seen in the neighbourhood of a yurt inhabited by a Sart shepherd from Hame.

We rode past a small stud of horses. They were of a peculiar type, low, broad and coarsely built. Their heads were strikingly small, their eyes narrow, and their movements good. They are reputed to be untiring, but very hot-tempered.

About $5 \mathrm{I} / 2$ miles from the pass we reached and encamped at the mapoza station of Shang Laibutchyen - not to be confused with the Laibatchyen sarai at "Peilu* which is called »Hsia Laibatchyen» - where we were offered hospitality in a filthy kitchen and a cold hall. A little stream flowing from a spring supplies plenty of water.

Horns of wild sheep are to be seen along the road and we caught sight of an unusual number of kekliks. There is snow here from September or October to April, up to an arshin in depth. Burans in winter are common, also in spring, but not so strong, mostly from the S .

We continued our journey along the broad valley towards the blue lake today. We October 1 lode from the mapoza station in a NE direction until, after about 2 miles, we reached Chu-chi the wheel tracks of the Tole dawn road that we had left yesterday just on this side of village. the pass. Following this, the course is ENE for 4 I $/ 3$ miles and then in an almost $E$ direction for about 7 miles as far as the Chu-chi sarai, where we camped. The ground during the day's journey was firm sand covered with grass, slightly mixed with gravel in places. It slopes to the NE. The mountain ridge in the N was still on our left. The local people said that kulans were very common on the grassy slopes. They were very shy and hard to shoot. Wild sheep are also found in the mountains, but in flocks of not more than io. Djerans, "kiyik» and wild boar are said to be no rarity. The mountain slopes look fairly accessible. Shooting must be splendid in these parts.

Two Sarts, who were watching flocks of sheep from Hami, brought me a sheep this morning. I had little difficulty in discovering that they were anxious to obtain a few cartridges from me for a Berdan rifle they had bought for 50 lan in Barkul. It was in good condition and had the forked support that is characteristic among nomads in Asia. I was pleased that I had a few spare cartridges to give them.

Some "tuntain towers that we passed indicated that there was formerly more traffic on this road. - Near Chu-chi we saw ruins of houses destroyed during the Dungan revolt. On a small single mountain that half closes the valley about a mile $E$ of the sarai, the ruins of a tower surrounded by a low wall are visible. The keeper of the sarai assured me that it was built during the Emperor Tang's reign, but judging by its exterior it must be of much more recent date. Next to the sarai stand the walls of a temple destroyed by the Dungans. 'Ihis is also said to date from the time of the Emperor Tang. I had the inscription on an over-turned stone monument near the mountain translated and it transpired that the temple had been built a little over a hundred years ago.

Chu-chi contains 6 scattered houses with very little tilled land. There is a well at the sarai, the other houses obtaining water from springs. Wheat ( $7-8$ fold yield), tchinkho (barley without husk) and peas are grown. Frost is a serious enemy here. There is snow from September or October to May, up to 2 arshins in depth. Burans occur in spring and autumn, but are rare.

October 12th.
I left the smoky hovel at Chu-chi without the least regret. The sooty ceilings were so low Barkul. that, however much you stooped, you could not help bringing down a shower of soot. After riding 2 miles in a SE direction we reached the southern end of the mountain with the ruins of the tower, which proved to be a whole pile of low mountain tops. For about $31 / 2$ miles we rode along the southern foot of the mountain and immediately after there was another which we followed for another $2 \mathrm{I} / 2$ miles. The ground still sloped towards the ENE; close to the mountain the slope grows rather more pronounced and forms a valley. A beautiful view was disclosed on the left across Lake Barkul, now only a little over a mile from the road. From this point we set our course ENE and reached the Katzu station, situated at the junction of our road and "peilu", in a few miles.

Grass grows all along the road which is firm and excellent. Sheep, horses and camels are seen grazing on the plain. - About 15 li from Katzu we passed Khuatchyenza, a village with a couple of dozen houses, on the left. Large quantities of hay stacked on the roofs indicated that cattlebreeding was the principal occupation of the place. We now crossed the plain, which had begun to slope to the north. No fields were visible. We met Chinese driving rough carts drawn by one or two oxen. The wheels in particular were clumsy, the spokes of a European pattern, but the wheel itself exceedingly rough and warped.

Soon after 12, we caught sight of the regular lines of the walls of Barkul. The town lies on the northern slope of the Dangansogo mountains, at such a steep incline that at a distance of a mile or two you see the outlines of the whole town and fortress as if you had a bird'seye view of them. There are no houses or trees anywhere in the vicinity except close to the wall. The Dangansogo mountains rise here to a considerably greater height than in the
neighbourhood of the pass or the upper part of the valley that we had traversed. With its innumerable folds in the ground covered with fir-trees it looks picturesque and magnificent, especially in its present winter garb. - "Kapitan», as my men call a retired Chinese officer employed by me, had succeeded with the help of the mandarin in securing lodgings for us in the house of a terrifying old Chinese woman, a tiny room for me, with walls, mostly of paper, and a larger one for my men.

It is the Barkul mandarin district, in which the pure Chinese element is comparatively October 17 most strongly represented in the Sinkiang province. The few Dungans and Sarts who are Barkul engaged in trade or handicrafts constitute a very insignificant proportion of the population (Balikun). of the district. The villages are inhabited by Chinese who immigrated in the course of a couple of centuries from different provinces in the centre of China, mostly from Kan Su , or were exiled for various offences. The mountains in the N and NW serve as an abode for about a thousand Mongol yurts with their inhabitants and herds.

From the high slope, on which the town is built, an open, grassy stretch is visible in all directions for a distance of many miles. The Tian Shan mountains, once more of mighty proportions, rise in the S ; in the N some lesser mountains are visible at a distance of a few dozen miles; in the NW, NE and E they are slightly higher. The plain continues in the W and ESE as far as you can see. One might be inclined to consider the district inhabited solely by nomads and their herds. To the N of the town the plain is intersected in an E-W direction by two rivers which unite and, under the name of Irdy-ho, empty themselves into Lake Barkul, described in Chinese maps as a "sea» owing to its great size. Two ariqs, as large as rivers, have been cut from the northern river and a number of villages have been established round them. If you ride due N from the town, you cross the first arm of the river, 3-4 paces wide, in about $4 \mathrm{I} / 2$ miles, the second, in which the water reaches a horse's belly and is 3 fathoms in width, about $2 / 3$ of a mile later, and the first ariq, I fathom wide, in another $5 \mathrm{I} / 2$ miles. Here the villages have run into each other and form a continuous row of houses for a distance of, perhaps, a dozen miles or more. The other large group of villages is situated to the east along the main road to Hami and slightly to the N of it. In other directions there are only a couple of villages with scattered houses. Wheat, tchinkho (a kind of barley without husks) and peas are grown. The average yield is 8 fold. There does not appear to be much tillage and the output of grain is not very considerable. The principal wealth of the district consists in cattlebreeding, for which the large, open grazing grounds are very suitable, but the inhabitants are able to sell some flour to Uliasutai and Kobdo. The administration of the province also has large studs of horses here, up to 6-7,000, managed by the Inguan (juti) at Kucheng. Their principal object is to serve as remounts for the provincial mapoza.

The villages in the district are as follows:

| From the town | Name | Houses | $\begin{gathered} \text { Tans of } \\ \text { grain } \\ \text { produced } \end{gathered}$ | Sheep | $\begin{aligned} & \text { Horses } \\ & \text { and } \\ & \text { cattle } \end{aligned}$ | Camels |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| W along main road | Hsita dun | 10 | 100 | 1500 | 160 |  |
| " " " | Khua tchyenza | 45 | 120 | 4000 | 300 | 200 |
| " " " " | Ka-tzu Idian and mapoza |  |  |  |  |  |
| Turfan road | Chu-chi ...... | 2-6 | 30 |  |  |  |
| SW | Nan yenza | 100 | 2500 | 5000 | 500 | 300 |
| E $\ldots . . . . .$. | Tung si tchy | 60 | 1200 | 2000 | 400 |  |
| NE of Tung si tchy | Ta hisia ho go | 17 | 400 | 7-800 | 50 | 500 |
| " " " " " | Kung pe'z | 50 | 1200 | 2500 | 400 | 1000 |
| " " " " | San sien khu | 30 | 700 | 3000 | 500 | 1200 |
| " " " " " | Shi u li miao | 70 | 1200 | 4000 | 200 | 1200 |
| N of Shi uli miao and further | Ehr shihlishuenza | 50 | 800 | 3000 | 500 | 1700 |
| along road to Hami . | Ta tchyen van | 70 | 1200 | 3000 | 400 | 500 |
| " " " " | Shu rinza ... | 60 | 1000 | 5000 | 200 | 1400 |
| " " " | Ehr shiu kunza | 40 | 1000 | 4500 | 200 |  |
| NE of "there " | Kuisungza | 60 | 820 | 3000 | 200 |  |
| NE of there and further | Kaudia khu | 50 | 700 | 5000 | 200 | 1200 |
| along road to Hami. | Sha shenza (25) | 50 | 700 | 3500 | 300 |  |
| " | Sung shu tang | 3 sarais |  |  |  |  |
| N of the town along |  |  |  |  |  |  |
| rivers | Tien shyng tchuang | 70 | 1200 | 3000 | 200 |  |
| from E to W | Tili tchuang. . . . . . | 80 | 2000 | 4000 | 300 |  |
| " " " " | Sjyng ho tchuang . | 70 | 1200 | 3000 | 200 | partly crown |
| " " " | Ta ju djuang | 70 | 1700 | 2000 | 200 | land worked |
| " " | Shang khu | 70 | 720 | 3000 | 200 | by troops |
| " | Sising khu | 50 | 920 | 4000 | 200 |  |
| " " " " | Imu hsien | 40 | 800 | 4000 | 300 |  |
| " | Hsi tun huang | 24 | 620 | 1500 | 60 |  |
| " " | Tungung huang | 17 | 220 | 1000 | 40 |  |
| " " " | Yumen | 70 | 1400 | 4000 | 170 |  |
| " " " " | Sy tchy khu | 20 | 400 | 1500 | 50 |  |
| " " | U vi khu. | 20 | 500 | 1200 | 400 |  |
| " " " " | San tchy khu | 30 | 1000 | 2000 | 100 |  |
| " " " | Ehrda ho | 70 | 2000 | 4000 | 300 |  |
| NW in "the " ${ }^{\text {" }}$. | Sando ho . | 70 | 2000 | 3000 | 500 |  |
| NW in the mountains | Hungliugo yurts 4-500 | Mongols | Mongols ${ }^{1}$ | 7000 | 1000 | 500 |
|  | " 4-500 |  |  | 5000 | 1300 | 500 500 |
| N of mountains | San-tao-Kow | 40 | 200 | 5000 | 300 | 500 |
|  |  | $15^{81}$ | 30550 | 108000 | 10330\| | 10700 |

According to information given me the stock of cattle amounts to: sheep 200,000; horses (including those belonging to Government) 25,000; cattle 20,000 and camels 10,000 . It seems likely that the statements regarding the sheep, horses and cattle are rather underestimated.

[^5]Camels grazing on the shore of Lake Barkul.

If we allow 4 people to a house, we obtain a Chinese rural population of $6300+2000$ in the town + a couple of thousand Mongols, who are not supposed to belong to the Barkul district. Besides, there is the town with about 2000 houses (this seems to be much exaggerated) or according to another source 4-500 houses and a population of 3-5 adults of either sex per household. There are ro8 shops in the town (Russian-Andijan), but only 4 fairly large and 8 small ones obtain goods from Kouli. Peiping goods are said to be imported annually to the value of about 180,000 lan (silver caravans with about 60,000 lan are despatched 3 times a year from Kucheng to Peiping). Blankets of inferior quality are produced here for local use and baskets woven of wicker-like twigs. There seems to be no other kind of industry except a few mills worked by horses. Exports consist of wool ( $50-$ 60,000 djin annually, mostly to Hami), camel-hair ( $30-40,000 \mathrm{djin}$ ), flour, cattle, horses and camels. The latter earn a good income for their owners by carrying on transport on the routes between Turfan, Kucheng, Kobdo, Uliasutai and Barkul. The average prices are I -2 lan 2 t . to 3 lan 5 t . per sheep according to size, 13 lan per horse, 50 --70 lan per camel, it lan for wool, or 9 lan if paid in advance, 12 lan for camel-hair per 100 djin, 7 lan for wheat, $3 \mathrm{I} / 2$ lan for wheaten flour per 100 djin .

The large area inside the neglected and dilapidated town wall is only partly built over. There are large open spaces along the north and west walls with enclosures for horses and cattle. There are 3 sarais, but the number of arbahs passing through Barkul is probably not as much as a hundred a year. The cause lies in the pass between Hami and Barkul which is usually difficult to negotiate as early as October. As the road, besides, offers no advantages in fodder and supplies over the Hami, Chin-ku-ching-tzu, Tashitow road, the latter is usually preferred.

The buildings look poor and dilapidated, the shops are pourly stocked, and the streets are empty and silent except for the yelling of children and the barking of dogs. Some old temples with their paintings, carvings and effective roof-lines relieve the dreary look


A temple just outside
the southern gute of Barkul.
The Tian Shan mountains
in the background.
of the town to some extent. They would mean little, however, if the grand, white mountain ridge in the S did not render the site exceptionally beautiful. A temple stands S of the town near the wall, embedded among shady old trees with the huge mountain as a background and making a picture of indescribable beauty. Like the town, it is supposed to have been built during the fourth year of the Emperor Kinlung's reign. Two huge stones standing there are said to serve as moorings for the two towns (the Chinese and the Manchurian) lying like two ships out in the open sea (the plain). If one of them comes to harm, the town will perish and it is solely to their presence and powerful protection that the Chinese ascribe the success of the town in resisting the repeated onslaughts of the insurgents. Further up the S slope there is a temple, about 200 years old, with mural paintings. Close to the N gate, outside the wall, stands a group of old temples. In the courtyard of one of them there is a black stone, I I/2 m high and $\mathrm{I} / 2 \mathrm{~m}$ wide, with curious Chinese lettering. Tradition claims that the stone grew out of the earth and that its root goes so deep that it cannot be reached by digging. With some difficulty I took an impression of the inscription. In order to get the paper to dry we had to keep up a good fire in front of the stone for hours. As it is encased in a little pavilion of dry wood, there was a risk of the whole show going up in flames.

The Manchurian town, or rather fortress, lies just E of the Chinese. It has remained descrted since the garrison was transferred to Kucheng 33 years ago, the wall is already partly in ruins and the only buildings left inside it are 3 or 4 temples and a group of buildings surrounded by a wall, obviously the residence of the commandant. With the exception of one they have been walled up and in order to enter you have to crawl through a small hole in the wall which is almost as difficult as for a camel to creep through the eye of a needle. In a half-ruined temple there is an old watchman and a few wax candles burn in front of the gods ... . throned images clad in robes richly embellished with gold. In all these temples there are large, interesting and decorative mural paintings. They are apparently very old


## BARKUL

Barkul is built on the steeply dipping N slope of the Tian Shan mountains. The Chinese town is dominated by the ground in the S, SW and SE. The wall is neglected, $31 / 2$ fathoms high and has a crenellated parapet. There is a fosse only in front of the $W$ part. No outer protected space. The fosse is only flanked by the gate projections. The corner and wall projections are small. The N wall forms a very irregular line and is entirely pilapidated in parts. There are loopholes in the parapet, but no embrasures for guns. Gates of rough timber with iron fittings. In the gateway the wall is 18 paces. Above the 4 gates turret-shaped pagodas of wood. A similar tower on a stone foundation in the middle of the town. Barracks surrounded by small crenellated walls in the SW corner and in the middle of its SE part. A wide, uninhabited space extends along the N and W walls. There is a narrower, open space along the S wall. The ground is entirely exposed without either buildings or trees, except those marked on the map, as far as you can see. The only irregularities are small burial mounds, about $\mathrm{i} m$ at the base and 0.3 m in height, adjoining in the $\mathrm{W}, \mathrm{N}$ and especially in the E . - The Manchurian fortress is abandoned and going to ruin. Its $W$ wall has partly fallen to pieces. The others are in bad condition. In the space inside the wall there are only 3 temples in the way of buildings and a group of buildings surrounded by a wall near the middle of the $S$ wall. - Drawn by the author.
and many of them are heavily gilded. There are no such paintings at Urumchi, Qulja and other towns.

The Barkul district is administered by a Fu, and a Djentai lives in the town. His "Djen", however, is more than usually unpretentious. There are 2 in of infantry in Barkul and $I$ in Kucheng, $I$ tchi of cavalry in Barkul and $I$ in Morokho (Munikhö). Taking into account the fact that the full complement is not maintained, the division (djen) must
amount to scarcely 200 men . The infantry is principally engaged in farming. Quite 8 months are devoted to ploughing and harvesting, i month to celebrating the new year and the remaining 2 to old Chinese drill. There are some young men among the troops, but almost all are addicted to opium smoking. There are a few Mauser rifles with 1 cartridge each, but no repeating rifles and no breech-loading guns. It can scarcely be said that this points to the strategic importance that the Chinese according to Grum-Grzimailo are supposed to attach to Barkul. A road connects this place with Suchow, but it is only used by camel caravans. The reason the Chinese army used it during the revolt instead of the main arbah route over Hami, was that Barkul was still in the hands of the only surviving Chinese garrison. According to the information which I succeeded in obtaining, this road is unsuitable as far as food goes for anything but camels and there is probably no better one, otherwise the few caravans that pass along this route would prefer it. Besides these routes there is a mountain road leading from Shang Laibatchyen over the Dangansogo pass to Lodun and another from Ka-tzu or Chu-chi over the Så dawan to Djigda and Togucha near Hami. Both are said to be rough and only fit for horsemen and light pack-horses. Taking into consideration these 6 means of communication with Barkul, it is difficult to recognise it as a junction of any importance.

The mineral wealth of the district consists of coal deposists in the mountains 20 li NW of San-tao-Kow, gold in the gorges Tudago, Ehrdago and San-tao-Kow in the same mountains and silver in the neighbourhood of Sun-Shui-tang. Coal was mined formerly in 7 shafts, but the number has now been reduced to 2 . The coal is of two qualities, its price being $4 \mathrm{I} / 2$ and 5 lan per 100 djin . 20 and $30,000 \mathrm{djin}$ are mined respectively. Owing to the shortage of labour the shafts are closed except in winter. -- Gold is said to have been obtained formerly, but now the Chinese authorities forbid the work. It is said to be the same case with silver. The quantity of grain surrendered annually to the district stores amounts to 36 I 6 tan. The taxes per mou are said to be 7 shin for good land, on which the sowings amount to 10 shin, and $31 / 2$ shin for poorer land with about the same sowings. Winter lasts from October to May. Snow occurs even in summer. In the spring there are heavy storms.

October 2oth.
$K u$-shui village.

My unbearably cross hostess, placated to some extent by a pair of scissors, a needle and thread, mirrors, brooches and some postcards, stood outside her door with her face buried in her hands as a valedictory gesture, when I set off to-day.

It was a cold day with a strong wind that penetrated our fur coats and felt boots. The road led eastward over the same grassy plain. A mile or two E of the Manchurian fortress lic the ruins of some fairly large fortifications which the jai declared to be the ruins of another Manchurian town or fortress. Far to the N houses could be seen extending from W to E . A mile or two from the ruins we passed a lonely house and immediately after the road crossed a stream lying at no great depth. The bridge was bad. On the right were solitary houses of the villages of Shi tchy and Ta-tien-tzu. $10-101 / 2$ miles from the town we reached Shi rinza, a village with an insignificant little miao put up to protect two blocks of stone, one of which was in the shape of a human head and shoulders. The

Chinese regard the latter as the road-sign that guided the Chinese troops here, when they came for the first time. Both stones are black and dripping with the oil, with which the arbah drivers anoint them to secure their protection for the axles of their arbahs during the coming journey. My own drivers were not neglectful in this respect.

Soon afterwards the road took a slightly SE course. On either side we saw ruins of houses, silent witnesses of the destruction caused by the Dingan revolt. In some places the firm sand and clay are mixed with gravel. The Tian Shan mountains also seem to have taken a SE direction. The ground in front of us forms a slight eminence, inclined to the N , beyond which a mountain rises, dividing the valley into two parts with broad outlets to the ESE and ENE. In front of it stands a solitary mountain that is said to be of sand. The dark clouds that had long been threatening, discharged a snowstorm which soon enveloped the mountains in darkness.

We reached Ku-shui after 5 or at most $51 / 2$ hours ( $19-20$ miles) on horseback. According to the Chinese the distance is 90 li . There are 2 sarais, wells and fuel; at times hay and straw are obtainable. There are 9 houses in the village, but they are not visible. On the whole, you see very few houses on the journey. If anything, the villages here are even more scattered than in the Kucheng district. Only occasionally does one see a small field. The road is good the whole way and there is plenty of grass. - At Ku-shui the winter lasts from October to May. The depth of the snow is 0.6 m . Snow in July and August. There are no burans.

Yesterday's high wind had turned into a NNW storm that raised clouds of snow and sand. The day was foggy and grey and the low clouds entirely obscured the mountains that I had noticed yesterday at a distance on the left. The road went on in an $E$ or slightly ESE direction. The ground was of the same kind as yesterday, but with more gravel and perhaps rather less grass. About halfway the road took a SE course. The Tian Shan mountains now lost their connected character and seemed to run eastward in the shape of long, semicircular ridges separated by deep valleys going in the opposite direction. The mountains seemed lower, at all events the wooded belt went higher up their slopes than yesterday. We passed a couple of low ridge-like hillocks extending to the N from the mountains. Here and there we saw the ruins of houses on the right. The road crossed the bed of a stream flowing north. In front of us the valley was closed at a distance of a couple of dozen miles by a mountain ridge that appeared to go in a $\mathrm{N}-\mathrm{S}$ direction and formed an angle with the Tian Shan mountains. The gravel soil became very stony in some places. The road took us over a dry, stony river bed up a short hill to the village of Sun-shui-tang, and into the narrow courtyard of a sarai, decorated with red lanterns, red curtains and Chinese proverbs printed on red paper. All this finery had been prepared for the Djentai in Barkul. He had been ordered to Hami by the Governor of Urumchi in connection with some disturbances among the population and was expected to return any day. Thanks to him, I had a brazier of coals yesterday and a heated kang, on which I lay and roasted myself at night. To-day the sarai was draped in red, we had tent seats, braziers of coal etc. A subaltern and several infantrymen are posted at every station to meet the general.

Sun-shui-tang has 3 sarais and 3 houses; there is good water from springs, grass and hay for sale at times at high prices. There is no agriculture. $10-20$ burans from the $S$ in winter. Snow from October or November to May, I $1 / 2-2 \mathrm{~m}$ in depth.

October 22nd The temple on the Tian Shan pass. are difficult for arbahs. The mountains that close the valley in front and on the left, do not run in a N -S direction, as it seemed yesterday, but NW-SE. They lie in many folds of fair depth. In about an hour we reached the mouth of a gorge that led us southward. It is called »Ku-ming-tzu»? and soon divides, the road following the western branch. We passed three bridges. The bridges and road were in satisfactory condition, though the ground was rather stony at times. The snow was quite $0.3-0.4 \mathrm{~m}$ deep. The arbahs found it difficult to make headway. The ascent became more marked. The animals moved forward unwillingly and with frequent halts. The snow grew deeper and the ascent steeper. The arbahs definitely lagged behind, although our 7 horses did their best to break a trail for them.

We followed the sweeping bends of the road and came to a Chinese post. From there the road seemed to zigzag up the mountain in the $S$ in innumerable curves. The height and road were rather reminiscent of Taldik between Osh and Kashgar. As we could see nothing of the arbahs, there was nothing for it but to leave three of the men behind and place the pack-saddles on their horses. I sent orders to the arbahkeshes to harness all the 8 horses to one arbah, most of the contents of which were transferred to the pack-horses.

Now the hard part of the climb began. The way was barred by large snowdrifts up to I I/2 metres in depth at almost every turn. By means of bribes and blarney I got a couple of men from the Chinese post, physically quite ruined by opium smoking, to help us with a couple of extremely primitive spades. Where the snow was not too deep, the horses had to act as ploughs, often up to their bellies and going at a gallop. The sweat poured off the lovely animals, but I could allow them no rest. The higher we climbed, the firmer and deeper the snow became. Wide stretches had to be cleared with the spades. At the top of the pass stood a Chinese temple, where we obtained another couple of spades. With our own that made five. Tchao, Djan and the two Chinese and myself worked for hours in the sweat of our brows. When our strength began to give out, I managed, by threats and offers of pay, to get another 3 Chinese, who had encamped at the temple on their way to Hami, to take our places with the spades, while the pack-horses were sent down for more loads. The first arbah was unharnessed halfway up the zigzag road and the arbahkeshes set off for the other, while we tried to get rid of the worst of the snow along the rest of the road. It was only after 12 hours' desperate labour that we finally succeeded in getting the arbahs up to the temple, which is not supposed to be more than 20 li from Sun-shui-tang.

Fortunately the weather was beautiful - sunny and calm. Had it not been so, we should never have reached the pass. We found shelter in the courtyards of the temple, but the situation was trying. The snow was an unpleasant surprise. I had calculated
that we should cross the pass in a day and would be able to buy hay in the evening. I had been able to supplement our stock of hay by sending a pack-horse back to Sun-shui-tang and buying a load at a hideous price. We had fodder and food for the men for only one day and the snow was said to be deep for another 20 (according to another version 40 ) li. If we failed to reach the next station to-morrow, things would be bad. The view from the pass is grand - northward across the chain of mountains on the opposite side of the valley and westward far across the grassy valley. Ku-shui was clearly visible and did not seem very remote, and far beyond it there was an open view. I could not make out Barkul, however. Mountains, no longer very high, rise to the S and SW of the temple. From their peaks Hami can be seen, I am told. The wooded belt, consisting of spruce and larch, ends some distance below the pass. The pass is closed from November or December to April or May. But for the snow it would be passable, though exhausting on account of the long climb. The road is good and not too steep, thanks to its zigzagging.

The temple was built 25 years ago (in the 18 th year of the reign of the Emperor Kuangsjy) by a Manchurian Ming who held some official post in Hami. Close to it lies a large stone slab with a long inscription from the time of the Emperor T'ang. It has been thrown down and a small shelter built over it. The superstitious people believe that if anyone touches the stone a storm breaks loose. Eight of us tried to lift the stone in order to photograph it, but could not shift it.

There is snow from September or October to April or May, I to 1 I/2 metres deep. Easterly burans occur in winter, 4-5 times a month; in summer twice a month from the SW.

The jai whom I sent out early yesterday morning to examine the condition of the October $2^{2}$ road, reported that there was deep snow for only a very short distance. We therefore started clearing a road with fresh courage. The snow, however, proved to be as deep and compact as the day before. It was long past midday and still there was no sign of a diminution in the layer of snow. A couple of dozen soldiers who were riding from Hami to Barkul gave us the "comforting" news that there was still so much snow in our way that it was impossible for an arbah to get through. These men were a pitiful sight, wrapped in furs and padded clothes, so that you could scarcely make out that they were human beings. A couple of officers, men of about 50 , with faces emaciated by opium and wearing large black padded coats, like those worn by old women in Russia, on top of heaps of other clothing, were true types of the warriors you see in the province of Sinkiang. The horses were of the spirited but small Barkul breed, well fed as they always are in the Chinese cavalry, where the horses are fattened but seldom get any exercise. The men's arms consisted of Mauser carbines (mod. 71) and short (about 0.5 ) sabres fastened to the left side of the saddle under their legs. Three of my horses had long since been despatched to the next station with part of the luggage, while all the other things were packed into the one arbah and all the horses and mules were harnessed to the empty one. Djan and the cook had been sent off on foot, but Sy had been given orders to remain until the last arbah had been brought up. I suggested to the arbahkeshes that we should leave the arbahs and lead the horses down
to the sarai at the foot of the pass, where fodder could probably be obtained and whence 1 intended to send to Kami for another 8 horses with ropes in order to try to save the heavy arbahs. The men replied, however, that in any case they were determined to get one arbah down. During these two days these two drivers were wonderful. The whole time they were in deep snow that often came up to their waists, yet they never lost courage, although all the 8 tired and hungry horses refused to go on. Whenever you said anything to them, they replied with a smile. When I left them, they had driven, at the suggestion of our incapable guide, the jai, into a narrow ravine-like hollow next to a bridge, where they stuck in the snow. They had a stiff job before them in getting the heavy cart up.

For about 2 miles the road goes in a SSE direction over slightly uneven ground with mountains on the right and left. The former were the higher. The drop in the ground was very slight and often nonexistent. Then we entered a gorge leading in a S direction, at the bottom of which a stream roared. The descent became considerable. In the upper part of the gorge there were a few isolated low conifers here and there. The road wound from one slope to another across the stony bottom of the gorge about 50 fathoms wide. The mountains were tinged with black and dark colours, were slate-like and not very high. There were some side-gorges only during the latter part of the road. In its upper part the gorge is called Khan issei gö, as the name carved on a block of stone indicates. The lower part which attained a width of 130 fathoms in some places is called Nansanku. A little grass protrudes between the stones. We had to cross the stream or river 5 or 6 limes. At this time of year the ice makes this difficult, especially for vehicles. The greatest depth is about 0.3 metres. Some deciduous trees grow by the lower part of the river bed. A few miles north of the Nansanku sarai there is a block of stone bearing two inscriptions in Chinese, one in letters of 3 m , the other rather smaller. They seemed to be of recent origin. Nansanku lies at the mouth of the gorge, $19-20$ miles from the pass. The distance may possibly lave been miscalculated owing to frequent stops, detours for taking measurements etc. In two places in the gorge we passed the remains of small-sized walls of stone. At the sarai we could only buy reed-like hay. After feeding his horse the ai had to make his way to a Sart village 40 li off to try to get fodder. It will not arrive until today, when the horses have set off to fetch another load. I had given up hope of seeing the arbah today, when suddenly the jingling of its bells was reechoed from the mountains. Soaked to the skin and terribly cold the two Chinese turned up, smiling and polite as ever. I gave them a good dose of quinine and 2 lan each, which latter must certainly have seemed the better kind of medicine to them. The cook and Djan, who had also had to wade across the river, were wet and cold. It is lamentable that they have no change of clothing, but must sit and shiver while they dry their clothes and boots before a fire. Dean, in particular, who has never done any other work than that of a shop assistant, has found the hardships of the journey almost unbearable: He sat soaking his cut hands in a basin of hot water and with a cloth round his head he looked more than ever like an old woman. The cook is all right and in general the Sorts seem to have much more stamina than the average Chinese.

In the Sun-shui-tang sari I killed time by talking with a couple of young officers and some soldiers. We spoke of reforms, especially the military reforms that were now being
introduced in China. In their opinion this was equivalent to becoming foreign (Russian or British) subjects, a point of view that I had heard expressed before by Chinese of the same level of education. The Bogdykhan, who was under foreign influence, was willing to become the subject of a foreign power, but his mother, the Empress, was decidedly against it. They said she was a wise woman, who was doing the country inestimable service, while Yuàn Shih-k'ai who had reformed the Tchili army, had sold himself to the forcigners. He would long ago have fallen before the Empress, if the foreign powers had not supported him and forced the Bogdykhan to retain this traitor.

There are large numbers of kekliks here, that can be heard cackling close to the walls of the sarai. Tchao and I shot a couple to-day and got a ducking as we crossed the river over the slippery stones. It is so warm and lovely here again $S$ of the pass that, during the day I work out-of-doors, the more so as the hovels that are used as quarters are dirty, cold and miscrable.

In Nansanku there are 2 sarais and a large, deserted Government sarai that is falling to pieces. The number of arbahs crossing the pass annually is less than ten, but from 400 to 600 camels pass in both directions. Nevertheless, the pass, when open, is possible for wheeled traffic. In several places the road is properly built and where the ground is very stony a heavy cart can probably get along. - The depth of the snow reaches $1 / 2$ arshin. It lies from October or November to April. There are burans in spring, summer and autumn from the $\mathbf{N}$ or E .

The work of bringing in the second arbah, also almost entirely empty, was less strenuous now that the road had been made through the snow. At dusk we heard its bells and soon after it rolled into the yard driven by its victorious drivers.

The remaining distance to Hami was said to be 147 li . In order to arrive in good time 1 started this morning at 3.30 . The direction of the road was SSW. The ground was at first very stony with a perceptible slope southward. The further we went, the smaller the stones became and finally they turned entirely into gravel and we once more traversed one of the gravel slopes that are characteristic of the southern foot of the Tian Shan mountains. The Nansanku river kept us company, murmuring on the right of the road. According to my guide it does not flow far to the south, but is lost in the ground. By the time it grew light, the mountains were already some distance behind us. Their peaks and ridges were hidden by thick clouds. To-day our labours would have been harder, perhaps even impossible.

After rolling along for 4 hours across the plain where the bushy grass grows in tufts we at last got the troublesome arbahs to the ruins of the Santoloba sarai. Water is supposed to have been conducted here formerly from the Nansanku river, but there were no traces left of any ariq. In another 2 hours and so minutes we passed the ruins of another sarai and came to the remains of the small village of Nitchithudza 2 hours and 15 minutes later. It was, no doubt, destroyed during the Dungan revolt. We were close to a belt of trees that seemed to rise out of the surrounding sand like an island. A couple of similar islands were observed further to the NE. The ground, which had become sandy some distance
before the village, was firm and rose slightly. After 45 minutes we crossed a stream running southward in a small valley, a couple of hundred paces wide. In front of us the edge of the oasis formed a semicircle with the horns, thickly wooded, jutting out at a distance of about $2 / 3$ of a mile on the right and left of the road. Half an hour's ride took us, after passing a large building like a temple and a memorial column on the left, to the edge of the culltivated area. Here a stream or small river wound its way along a valley in a SSW direction and quite close to the town joined the one we had passed ii $/ 2$ miles before. There were single houses in the shade of trees in the valley and along its edges. For a short time we skirted the valley and then crossed it. The river, flowing in two arms, and a broad ariq were crossed by 3 good bridges and we entered the suburb of Hame.

October 27th. Yesterday and today I exchanged calls with the Mohammedan Prince of Hame, the Hami. Djentai of Barkul who was still staying here and the military commander of the place, the Hsietai Jung.

Prince Shoo Makhmut lives in a neglected and badly constructed group of buildings in the NE part of the Sart town near its northern wall which is about 9 fathoms high in this place and of a respectable thickness. You ride along a narrow courtyard, paved with stone slabs and rough stones, shaped like a passage, which forms a curve and leads into the inner courtyards, through a succession of wooden gates to the palace. On one side of the inner courtyard a broad stairway, reminiscent of church stairs, leads to the building occupied by the Prince. A pathway of stone slabs leads to a pavilion opposite which usually serves as a reception room. There is a gateway in Chinese yamen style before the entrance, with double doors in the middle and side entrances for less exalted visitors. The reception room, lighted by many windows along both the side-walls, was light, airy and pleasant. A deep scarlet sofa, divided into two by a low table, stood opposite the door. From the door to the sofa there were two rows of red armchairs facing each other. The most tasteless :crcens and lamps were placed next to beautiful Chinese vases. Two of the commonest lamps were suspended from the ceiling above the rows of armchairs and were adorned with looking-glass medallions, fixed into the painted tin shade, and a couple of bronze birds on the metal wire holder. The scheme of decoration was completed by some paper scrolls with Chinese wording on the walls and a couple of bright red and green hangings over the doors.

As I dismounted at the gateway, the Prince came hastily down the steps of his house dressed in the official Chinese garb. He was below medium height and very bent, though he did not look more than 45 . Constant association with the Chinese and his life in Peiping have endowed him with all the manners of a Chinese mandarin. In spite of his smiles and excessive politeness, there is something repellant about his personality, which breathes toadyism and cowardice. Unlike his son-in-law and colleague at Lukchun, he is master of the Hami oasis, where he levies taxes, dispenses justice and even has a bodyguard of 40 Chinese soldiers, armed with Mauser rifles, since the Dungan rising. The population does not seem to be pleased with his exercise of power, for disturbances had occurred recently. The local people had declared that they no longer wished to fulfil their duties as tax-
payers, and demanded to be placed on an equal footing with all other Chinese subjects. The palace was besieged by a mob of several hundred, though it did not dare to resort to any hostile action beyond blocking the gateways with stones, from the outside. Chinese troops hurried up under the command of the Hsietai and, after warning the mob to disperse, fired a few shots, wounding or killing about a dozen Sarts. This settled the disturbance and the population was again resigned to contributing its mite to the Prince's store.

On hearing of the matter the Governor of Urumchi ordered the Djentai at Barkul to proceed to Hami, as he had for a long time commanded the local garrison in his capacity as Hsictai. His tchi of cavalry that accompanied him had returned to Barkul and all was now calm and peaceful. It is suspected that the population was roused by the local mandarin who had persuaded it to throw off its subjection to the Prince in the hope that he would himself be granted the right of collecting taxes for the Government. The Prince's sympathies seem to be on the side of the Chinese. He speaks of them with gratitude and appears to be full of admiration for the new ludziun troops who passed recently on their way from Chihli to Urumchi. He expressed the conviction that the Chinese would soon possess troops here fully equal to any European troops.

The Hsietai looked a fine, well fed epicure. He had travelled much, had been a member of some mission and had visited St. Petersburg, Berlin, Brussels and the Hague. In addition to pleasant memories and a couple of framed photographs of male and female cyclists, he had acquired a measure of European manners, could count up to 5 in Russian and introduce a few Russian words in season and out of season. As a military man he seemed to be as far behind the times as all his worthy colleagues, but the ludziun troops that passed recently as already stated, seemed to have made some impression even on him. He assured me that in three years' time the province of Sinkiang would have 3 divisions of fully Europeanised troops at its disposal, for all the present mluin» troops would by that time have been replaced by ludziun. I noticed a young man of exceptionally lively appearance among his attendants. He proved to be a newly arrived instructor for the ludziun troops recently sent here from Chihli. He was quite incapable of reading a map, so his military training cannot have been very thorough and it is to be presumed that in the hands of completely ignorant officers he will not achieve any marked results.

The Djentai from Barkul is an old officer of the most ordinary sort. I handed him a letter from Lan gunge which he spelt out in a subdued sing-song, while his attendants elbowed each other and almost helped him to read it. I asked him to explain the mutual position of several places and he did so without being able to state their position with regard to the points of the compass. I mention this as an unusual instance, for, although these people use no maps, they usually know the points of the compass at any place or at any time, often even better than Europeans. With commendable modesty the old man told me that he could read, but was not much good at writing, adding aWe soldiers do not need to be able to read and write». Both he and the Hsietai assured me in the most categorical manner that, when the province was reconquered, the three commanders-in-chief of the Chinese army, Tao thun tan, Lii thin tan and Tchang You, had led their troops over Ansi and Hami. The first troops had left Hami for Barkul. A number of railings


The Djentai and Mivetai with thuir guest, al :king tea on the teranda of the drill-ground pavilion at Hami.
still indicate to this day the zigzag road on the northern slope of the pass that had been constructed by them. Not a single detachment had taken the camel route from Suchow direct to Barkul. On the other hand quite a number of camel transports had been taken over Kanchow-Chouti -Chinta-Chin Shen--Barkul-Kucheng--Urumchi.

The Sarts' version of the recent disturbances is worth mentioning, as it seems to be nearer the truth. A letter, in which the population declared that it could no longer bear the burden of taxation and labour imposed upon it, had in some mysterious way reached the Prince. Enquiries were made, but as nobody would admit to being the author of the letter, the Prince ordered three men, on whom suspicion had fallen, to be banished to some place in the mountains. Thercupon a second letter was discovered containing upbraidings for the sentence and a declaration that the people were willing in future to pay taxes either to the Chinese authorities or to the Prince, but not to both as in the past. As a measure of reprisal 5 Sarts were caught and flogged. In the meantime the Djentai arrised from Barkul. When the flogging had been carried out, a few hundred Sarts assembled at a bridge outside the town wall not far from the palace. The Djentai's demand that they should state the cause of their grievance produced a written reply, pointing out that the population was unable to fulfil the demands of the Prince. Besides heavy taxes in grain, calculated according to the cupidity of his representative, it had to sacrifice about a week in every month to doing unpaid work for the Prince. If sheep were being tended, the shepherd was made responsible for any harm that might come to the animals, besides which he had to produce as many lambs as there were sheep in the flock or in other words replace the missing number. In ploughing or sowing the labourer was bound to undertake to deliver a harvest of ro times the measure used for sowing, irrespective of weather and wind. The docunent pointed out in conclusion that the population had resolved to perform its duties

## Officers of the Hami garrison. In the centre the Djentai of Barkul and the Hsietai.


either as Chinese subjects or as subjects of the Prince, not as both. The Djentai's attempts to persuade them to disperse proved vain, his prososal that in future only three days' labour should be demanded per month also produced no effect. The crowd sat ensconced with its pälaw dishes round the bridge and discussed its troubles. When this comedy had lasted for several days, the Prince caught one of the recalcitrant men, had him strung up on a pole and flogged in sight of the people outside the wall. This led to a movement towards the palace, though it confined itself to an attempt to barricade the gates from the outside. The Chinese troops were then ordered to interfere. According to the statement of the Hsietai, 20 men fired into the air, the other $4^{\circ}$ only being armed with sticks, but the result was 6 dead and 5 wounded. The crowd dispersed in a panic and many Sarts fled from Hami. Then came the most curious part of the whole affair. I5 Sarts were captured and beaten with sticks on their bare ankles in the presence of the Djentai, Hsietai, the Shenguan pro tem. and the Prince, to force them to admit that they had paid the Shenguan (the regular one who had been removed to Urumchi owing to the disturbance) 1,500 lan on condition that he succeeded in getting them recognised as Chinese subjects and released from their liabilities to the Prince. The torture succeeded in inducing only one of the men to confess to the acts ascribed to them. He was released from torture at once. - The population declared that the story of the 1,500 lan was an invention of the Prince's in complicity with the military authorities whose interest in the outcome of the affair had been secured by generous presents.

During my stay here $I$ had to settle a question of a diplomatic nature. Arriving in October 28 advance to find quarters, my new cook had encountered some kind of patrol of 8 men. Hami. When he asked them to make room for him to ride past, he was answered with threats and
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HAMI
Hami consists of 3 towns. Sincheng surrounded by quite a small, neglected wall with two gateways without gates. In the $\mathrm{N}, \mathrm{E}$ and S it is enclosed by a large suburb, the houses of which come up to the very wall. The W wall facing the river valley is free and has a small annexe, in which there are a couple of Government buildings. The suburb ends in the $N$ in an abandoned small impanj, the wall of which is partly in ruins. A small impanj, occupied by a cavalry tchi, stands $W$ of the river valley. A small building, surrounded by a crenellated wall, is visible in a clump of trees to the NNW. NW of the cavalry impanj there are the remains of a fortress wall, the southern part of which has fallen to pieces. - Laocheng, the actual town, is surrounded by a wall, $3^{1 / 2}$, fathoms
orders to dismount and proceed on foot and hand over his cartridges. When he explained that the cartridges were mine, and refused to obey, he was given several blows with sticks. The beating cannot have been very serious, for he was able to cook dinner as usual and "forgot" to tell me his adventure. I only heard about it on the following day. As the matter concerned the servant of a European and moreover an Andijanlik, I decided that I could not ignore the incident. The indisposed and invisible Shenguan informed me that the soldiers were in the service of the Wang and that it was therefore beyond his competency to punish them. The Wang replied that he would ascertain whether the cook had really been beaten and would punish the guilty parties. A subsequent message advised me that two soldiers had been found guilty and would be punished. I replied, however, that all 8 men were guilty and demanded that they should be sentenced and in my presence, otherwise I should telegraph to the Governor at Urumchi to have the matter settled. Various alternatives were proposed, but after 24 hours' deliberation, I was informed that the Wang had agreed to my terms and had fixed the trial for the following day. I was allowed to choose the time. In the evening the last messenger appeared, a Tartar and a Russian subject, whose assistance had been enlisted by the Wang in a last endeavour to settle the matter amicably. As I was by no means delighted with the prospect of witnessing the coming performance, but rather was anxious to raise the prestige of the Russian Tartar in the eyes of the Wang, I agreed to let the matter drop, provided all the 8 soldiers received orders to apologise to my cook. The latter was good enough to forgive them and the Russian subjects in Hame rejoiced over the incident which had doubled their (as they said) diminishing reputation in the eyes of the population.

Hami or Kumul, as it is still called by the Sart population, consists of three towns built close to each other. If you come from the north, as I did, you first reach the suburb with its

October bazaar and along its main street you ride through the so-called "new town", "Sincheng",

[^6]almost without noticing its wall that encloses an area of not more than roo sq. fathoms. Sincheng is shut in on three sides by the suburb. The E wall alone, facing the valley of the river with a slight projecting annexe, is free. The winding bazaar street leads you, after innumerable twists and turns, nearly to the W gate of the nold town», "Laocheng». Laocheng is the Chinese fortress. Externally it is like all the other fortified towns in the province, only cleaner and in better condition than many of them. Its area, scarcely $1 / 3$ of a mile square, is sparsely populated. The inhabitants are exclusively Chinese. Beyond a clean barracks with offices for the Hsietai, the neglected yamen of the district mandarin and a couple of other Government buildings and temples, there are probably not more than a hundred houses.

A third of a mile to the W on the other side of the river valley lies the old Mohammedan town, the residence of the Prince. It is enclosed by a dilapidated old wall with innumerable small square projections. Near the palace it is as much as 9 fathoms high, in other places only 3-4 fathoms. In former times it offered strong protection, no doubt, against an unarmed or badly armed host. The interior looks poor and desolate. The Prince's residence is tucked away in the SE corner. All the rest of the rectangular space is occupied by miserable little hovels crowded on top of each other. A crooked lane leads from the N gate, another rather larger one from the other gate of the town facing E , and both lose themselves in the mass of houses, goodness only knows how and where. Immediately to the W of the town, which the Chinese call Huicheng, stands a mosque surrounded by a large mazar. This is the mausoleum of the princes, comparatively richly decorated with pavilions of wooden lattice-work. One of them was built by Shao Makhmut, the present ruler of Hami, in the same style as Hezret Appag's mosque at Kashgar, though less pretentious. Both inside and outside it is faced with glazed tiles of different colours, blue and green. The last Mohammedan prince of Kumul in the direct line rests here with his wives and children under the large cupola. The present prince has risen by the caprices of fate from a poor shepherd boy to a princely throne and wealth that should by rights not be his. He was brought up by the last ruler of the district, married his daughter and succeeded by means of bribes and intrigues in Peiping in being recognised as the heir to the small principality.

In the W and N this group of three towns is bounded, at a distance of about $2 / 3$ of a mile, by a barren waste, covered with gravel. In the $S$ and $E$ there is a cultivated plain with small villages, single houses, groves and single trees.

The villages in the Hami district are as follows:

To the $S$ on the river Gol Uljen:
(Grass river)

| Shanga | 30 houses |  | Ajar | 70 houses |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| E of Shanga: |  |  | E of Aja |  |  |
| Qarangy | 15 | " | Qara Su | 0 |  |
| Shumshuk | 10 | " | Debesjin | 20 |  |



The stock of cattle is small, except at Lapchuk and Qara Döbe, where the quantity per village may be estimated at: horses 200, horned cattle 6-700 and sheep 4-500. Clay and manure are used. Wheat, gaolyan, barley, peas, millet, kunsjut and othe oil plants are grown and the average yield may be calculated at 8 fold. The greater part of the tilled land belongs to the Wang and the quantity he sows is about 350 sacks of ro poods each. (This seems very little and probably refers only to wheat.)

In the mountains $E$ and NE of the Nansanku station on the Hami-Barkul road there are the following populated places:

| Narin 15 li from the Barkul road Kurai ${ }_{15}$ li from Narin |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  | trict |
| Kizjar |  |  |  |
| Ehrgaite so li further |  |  |  |
| Nanas gorge |  |  |  |
| Timirti | " | " | " |
| Tosho |  |  |  |
| Turkul or Tomodun with a pond (no tilled land) |  |  | " |
| Artariq, in its lower course Adak | " | " | " |
| Lom with water from the Adak (Wang's fields, place of exile) | " | " | " |
| Baj, E of Lom | " | " | " |
| Tal | " | " | " |
| Adra | " | " | " |
| Teruk | " | " | " |
| Narin Kire (near Barkul) | " | " | " |
| Hotentam | " | " | * |
| Bagdash | " | " | " |
| Tashar | " | " | " |
| Tarahte (W of Nankansu) | " | " | " |

In most cases the names probably refer to the river or stream that waters the district. The majority of these places are said to lie N of the Baghdash mountains. Baghdash is reported always to be covered by snow. I wonder whether the local people call the Yashil kul glacier Baghdash? The name Yashil kul was unknown to my informant.

Some of these places are said to be large, open plains. Lom, which is used by the Prince as a place of exile, is a plain enclosed on all sides by mountains and so large that flight is out of the question. A horseman cannot get out of sight of the warders for a whole day. The population consists of $50-60$ yurts or houses to a durga district. There are both houses and yurts. In Teruk there are only 20 yurts and in Lom 70. - Land is only tilled on a small scale. Barley alone is grown, except at Naryn, Kurai and Kizjar, where there is also some wheat. The average crop is 9 -ro fold. The principal occupation is cattlebreeding and the total livestock of all the districts is said to amount to: horses 6,000 ,

horned cattle 15,000 , camels 1,000 and sheep 100,000 . Besides there are the Wang : Ireth: horses 7,000 , horned cattle 4,000 , camels 300 and sheep 50,000 .

The population of the towns is said to number about 1,500 houses in the bazaan and Laocheng and 400 in Huicheng. Both in the towns and the villages ;-6 persons can be calculated per household, but in the mountains no more than 3 or at most $q$ adults. If this estimate is correct, the total population should be over 18,000 . The majority are Sarts, but there are Chinese and Dungans not only in the Chinese town and bazaar, bur also in some of the villages. Purely Chinese villages are probably not included in these calculations. The Chinese and Dungans are governed by the district mandarin on general principles, the Sarts exclusively by the Wang. The bazaar tax is the only one levied by the Chinese authorities without regard to nationality.

The taxes of the Sarts consist principally of labour, tillage, buildings, tending herds, coal mining, hunting etc. I was informed that wood, fodder and grain were only taken for the needs of passing Chinese officials and every three years 50 per cent of the annual sowing. The main articles of export are about 200,000 djin of wool at $11-12$ lan per 100 djin , about 5,000 sheep (Wang 2,000 ) at 2 lan 6 t . for a 3 -year old, sheepskins, furs, grain, I bag of wheat (of ro poods) at 6 lan 5 t ., fruit and some camel's-hair.

The bazaar contains i 70 shops, 6 of the larger ones having a turnover of about 6,ooo lan and the largest about 130,000 lan each. Russian goods are sold in 2 shops belonging to Russian subjects (one is owned by Muhamet Gazi's llkhamsjanoff at Urumchi and is run by two capable Tartars, Shai Alhmet and Muhamet Sultan Bagautinoff), 6 shops belonging to Chinese Sarts and 5 shops owned by Chinese. No Indian goods were to be seen and there were only small quantities of Chinese (and Japanese) goods in 4 shops.

The inhabitants differ considerably from the other Sarts in dress. Their clothes have a Chinese cut and Chinese cloth is used for preference. On great occasions the women
wear a kind of wonderfully large head-dress of brocade embellished with various ornaments of stone in filigree. This original head-dress is also decorated with the traditional Chinese red coral knob. The Andijanliks and Sarts not indigenous to Hami declare that the population is of Mongolian origin. They are supposed to have embraced Islam a couple of centuries ago. Their language is also slightly different, being interlarded with Chinese words.

Andijan
Barma
Jok
Bardmadem

Kette jok
Kyz
Ajem
Legen
Tchiker
Bydai
Tarc
Ush joll
Biik tumak
Takja
Uremal
Bilbau

Kiumul
Barlema
Jokhla
Bardynglamo
Barlema jokhla
Ajlam
Appak
Takse
Jangtang
Bugdajdigen
Suck
Taram jolldigen
Ure buryk
Tchapak buryk
Tchusjungza
Pota

Turfan

| Barmu | - aff. question |
| :--- | :--- |
| Kamede | - negation |
| Bardyngsma | - |
| Barmeken jokmeken | - |
| Kyz | - girl |
| Kheinem | - wife |
| Tabak | - dish |
| Uruskante | - sugar |
| Bugdai | - wheal |
| Tare | - |
| Ush asha joll | - what road |
| Igiz buryk | - head-dress |
| Tchapak | - small cap |
| Jaglyk | - cloth |
| Bilbagh | - sash |

Hami undoubtedly owes its great importance to the fact that it commands the only road for wheeled traffic that connects the province of Sinkiang with Kouli. All other routes can only be used, at any rate at present, by camels. A camel caravan route goes from Hami over Hwang-lung-Kang to Chinta and Suchow. In spite of the presence of grass and water it is little used owing to the rain, cold and storms that are encountered there. The tracks are usually obliterated and it is easy for horsemen to lose their way. It is probably the same road that was taken by the Chinese transports during their operations for reconquering the province. From its sccond station a road leads to Tchin shen. Unfortunately, I was unable to obtain particulars of the road from this place to Barkul. Nor was I able to ascertain whether, as seems probable, a caravan route connects Hami with Kuku Khoto. There is said to be a road from Bugas, S of Hami, to Tun-huang which can be reached on horseback in 3 days. It is only used by men who have reason to shun the high road. Travellers crossing the desert by this route are said to hear voices and shouts from the once populated plain.

October 3oth. Late last night we got our loads and supplies in order and to-day we left in good time. Hwang-lung - Neither the persuasions of the Hsietai, nor the fodder he sent me yesterday could induce me Kang station. to postpone my departure. The bazaar was just awaking from its night's rest as we rode out of the town along its winding street. Beautiful uncured sheepskin furs and equally
beautiful trousers with a Chinese design embroidered at the foot where the hem is turned up about 20 cm , hung in rows outside a couple of shops and tempted us for the last time. These furs, and dried melons, are the specialities of Hami. The seeds are removed from the melons, which are then cut into slices; these, when dried, are plaited into rather an intricate, large, solid cake. The first time you see such an object, you find it hard to believe that it is a melon. It is by no means easy to scrape anything edible from the shrivelled, sticky slice, but the effort is worth while, for the melon is unbelievably sweet and aromatic. Hami melons are known far and wide as the best in Central Asia and are exported northward to Barkul, Uliasutai and Kobdo.

The road runs through the Chinese fortress and out at its E gate. The parade ground and shooting range of the infantry in are situated along the inner wall. The range is 200 250 paces in length and ends in a clay wall, about $10^{\prime}$ high and 5-6 paces wide, against which the target is placed. This wall is next to the street along which our way leads. It is strange that no accidents occur under such circumstances. Chinese practice firing, however, is done as a rule in the direction of a town or some other inhabited point. In Urumchi, for instance, the wall of the range is built $1 / 3$ of a mile from the town and the firing is done in the direction of the town. And yet Chinese soldiers cannot be accused of being exactly crack shots. To-day, however, things were different. I had to wait outside the wall for Tchao for some time and listened to the drum signals that record hits. At least 8o per cent of the shots were hits. The men might almost have known that I was behind the wall.

We took the northern of two roads leading to Ikoshuor. The southern road goes through the $S$ gate of the town over Langar and is mostly used in winter. E of the town at a distance of $\mathrm{I} / 3$ of a mile lies the village of „Central Ajarn. Just before it we crossed a solid bridge over the Ajar river, about I fathom wide and 0.4 m deep. The villages "Upper Ajarn and "Lower Ajar» lie about $1 / 2$ mile from here on the upper and lower course of the river. From the bridge a populated area, with a thin growth of trees, runs along the northern wall of the town. With the exception of the slight valley formed by the river, the ground is level, tilled and strewn with single houses, clumps of trees and trees standing by themselves. The course of the road is ENE. The soil is clayey with pools of water in many places. The village of "Upper Ajar» lies close to the road on the left, on the right Savash. There is a group of houses belonging to the village of Debesjin about $1 / 2$ mile further on at the side of the road and about $2 / 3$ of a mile further we enter the area of the village of Tsei huos. At the end of it the road takes a SE coursc.

At a bend in the road I was greatly surprised to see the old Djentai apparently waiting for me. He said he had spent the night at a cottage in order to offer me a rest as I was passing. I felt quite overwhelmed by such kindness. It was a cloudy day and a strong NE wind chilled us to the bone. I accepted the old man's invitation with alacrity. However, my emotion and gratitude were quite uncalled for, as is usual in Central Asia; it turned out that the old fellow had merely been spending a voluptuous night with his young wife. A year ago this erotic old warrrior of 64 had married, as his second wife, the 18 -year-old daughter of a poor farmer of 32. The wife had now been fetched from Barkul and was staying for a time with her parents. The old rascal departed from the strict rules of Chinese
etiquette and allowed me to see his treasure. 'The general's wife and her sister came pattering in on their tiny feet, crossed their hands over their stomachs with a slight bow in sign of greeting and disappeared again without saying a word. Just like a couple of horses or dogs that their owner was proud of. The old man was evidently pleased by my words of praise and innocently enquired whether I thought that he or the Djentai Tang at Aqsu had the lovelier wife.

The village of Shang tchy shang appeared on the left and a mile from the turn of the road we rode through a belt of trees in which the village of Gobijenza stands. The village is on the eastern edge of the tilled land. Here a gravel plain started that led us by a scarcely perceptible ascent in a SE direction. The ascent ceased 3 miles later and about $2 / 3$ of a mile further there was grass growing in small tufts. $11 / 3$ to $12 / 3$ miles beyond, the gravel changed to sand and the ground went in mounds. Reeds began to occur and gradually became thicker until 2 I/2 miles further on we reached the village of Ikoshuor with a mixed population of Sarts and Chinese. Here the road over Langar joined ours. After warming ourselves in one of the houses we continued in a SE direction and reached our camping ground an hour later. A severe snowstorm in the mountains had enveloped them entirely in clouds and robbed us of the beautiful sight that I had enjoyed for months. During this day's journey I could not distinguish the mountain that is marked on the 40 verst map in a NW direction just E of Hami.

In Hwang-lung-Kang there are 4 large sarais, a mapoza station and a dozen houses. Wheat, tchinkho and peas are grown. The yield is $6-8$ fold. The soil is saliferous. There are 80 cows and oxen, 20 horses and $8-900$ sheep. The snow lies from December to February, up to $\mathrm{I} / 4$ arshin in depth. Burans from the E are common in winter and summer.

October $3^{5 s t}$. Yesterday's east wind continued to-day with unabated fury. A clear sky and warm Chang-liu- sunshine, however, counteracted the penetrating cold to some extent. The road continued shui station. in a SE direction across the same reed-covered ground. The soil was saliferous, but the reeds less thick than yesterday, especially between Ikoshuor and Hwang-lung-Kang, where they are tall and comparatively dense. Here and there spiky, low grass took the place of the reeds and once or twice we noticed bushes. About 30 li from our starting place we saw the ruins of a sarai or some other retreat, otherwise there was nothing of note. In the NNE we could for the last time enjoy the sight of the snow-covered range of the Tian Shan mountains which, after having dropped very much E of Köshety or the Tian Shan pass, rose again in undiminished majesty. The local people give them the name of Baghdash. To the E the mountains drop very rapidly and become quite small. The road led us relentlessly away from these bright mountains towards the desert, on the edge of which the Chang-liu-shui station lies. The ground descends here quite suddenly towards a lowlying belt of gravel running in an $\mathrm{E}-\mathrm{W}$ direction. From the edge of an area covered with reeds an extensive view is obtained over the enormous plain of gravel, the uneven, greyish-black surface of which produces an impression of imposing seriousness. Far to the south there is a hazy dark ribbon that looks like mountains. We rode down the short slope to a group of 5 sarais, a temple, a mapoza station and a picket of 5 cavalrymen.

I glanced backwards in vain. The rise in the ground obscured the gleaming white peaks and ridges of the Tian Shan and forced us to turn our gaze forward to the interminable dark desert. The sarai is comparatively good. The rooms are so small that a pan of coals gives off some heat. The reeds in the plain supply at any rate sufficient fodder to support 40 cows, so horses and $50-60$ sheep. There is no tillage. The soil is very saliferous. Snow melts as soon as it falls. E and NW burans are common from November to the beginning of summer. Water is obtained from springs and a well. At Hwang-lung-Kang the level of the water in the well was about 2 arshins below the level of the ground, here about 3 arshins.

The low-lying desert that I took for a gravel plain yesterday at a distance, proved to be a gully with a sandy bottom, enclosed on the $\mathrm{S}, \mathrm{E}$ and N by raised ground. The soil is löss and the arbah horses puffed and blew a great deal. The surface is slightly uneven and a few spiky grass plants were growing on it. The road went on in a SE direction. We reached the raised ground at the southern edge of the gully in about 4 miles and climbed on to a large, slightly higher plain, on which the sand was mixed with gravel and was a little firmer, though the wheels of the arbahs nevertheless cut deep ruts. After another 4 miles we reached another gully, not so broad or sharply defined as the first. This was succeeded by a ridge-like elevation also in an $\mathrm{E}-\mathrm{W}$ direction. From this the road led us again into a gully similar to the first in shape and size. S of the ridge-like eminence that bounds it on the $S$, lies the group of Yen-tun sarais at the very foot of the eminence and on the edge of another, apparently still larger gully. There was absolutely no sign of mountains in the south for a distance of at least $15-20$ miles. As a large rise in the ground is marked just E of Hami on the 40 verst map, where $I$ could not find it with the best will in the world, these three striking ridges of gravel and sand should not be overlooked. The barren area starts at the first of these eminences. The road is trying for vehicles owing to the löss. The weather was bright and cool. The wind was in the E and still high, though not as high as during the last two days. The distance for both these days was 70 li , which I calculate to be $16-17$ miles.

In Yen-tun there are 3 sarais, i mapoza station and a temple. There are 3 wells with plenty of water, slightly salt. The level of the water is about 4 arshins below the level of the ground. Snow falls 3-4 times in November and December and during the spring and winter.

We started immediately after 5 this morning. The thermometer indicated $-3^{\circ}$ R., November but it was a clear day and perfectly windless. In the $\mathbf{N}$ the Tian Shan mountains were so Kufi static distinct that it was hard to believe that we were 4 days' journey from them. The road crosses ( $K i u$-shui $i$ the valley $S$ of Yen-tun in an ESE direction. In about 7 miles we came to a rise in the Chinese). ground, the point of which reaches the road from the E. Its direction is $250^{\circ}-70^{\circ}$. On the opposite side (to the $\mathbf{S}$ ) the same valley continues, bounded now by a semicircular gravel hill in the E. We reached the S edge of the valley in 2 miles and the road took us up a gravel slope to raised ground similar to that we crossed yesterday. This raised ground, which
extends far to the W in a direction $-95^{\circ}$, is the first height due S of Yen-tun at a distance of about 7 miles. Considerably further S a slightly higher line of hills is visible, running apparently in a more NW direction. The road now led for hours over the slightly uneven surface of this raised ground, down into and up out of a slight gully, or up on to and down from a slight mound or long undulation in the ground. Everywhere the same barren waste of gravel and sand. The arbah wheels made deep tracks in the ground and our carts only advanced slowly, stopping from time to time to let the horses get their wind. 30 lif from Yen-tun there is a mud shed in the shape of a yurt and 30 li beyond a temple with a watchman. Here we saw a hole, 4-5 fathoms in depth, dug in a vain attempt to find water. There is said to be a well, which I had not noticed, 10 li from here and the watchman gets his supply from there. Another 40 li further on there was a yurt-shaped mud shed, but otherwise nothing but gravel, sand and blue sky, excepting a few carcases of horses lying by the side of the road.

We met 2 arbahs, the first during these 4 days, and about a dozen Chinese settlers from the province of Khunnan. A couple of them were mounted on donkeys, the rest were tramping the short distance of a few thousand miles on foot. One of them had no equipment beyond a straw hat with an enormous brim which he balanced on a stick. Only one wore a fur and this was so large that it must have been torture for him to walk. The distance to Kufi is said to be 140 li. I make this about 37 miles. In the scorching sun in the summer this must be very exhausting, but at this season of the year it is easy, especially on a day like this.

There are 3 sarais at Kufi and a mapoza station. 2 wells. The water was 4 arshins below the surface. Snow to a thickness of $I / 4-1 / 2$ arshin from December to February. Rain from April to November. Burans from the W and E in spring and winter. - A road leads from here to Tun-huang.

November $3^{r d}$. We started at 7 a.m. after a disturbed night, because the arbah drivers and men of an

Sha-chuantzu station. army convoy that arrived during the night raised hell when they found that they were not likely to get all their horses tied to the cribs. I had to use all my energy and threaten to telegraph to the Governor from Ansi, before they would listen to reason and give up the idea of driving my horses away from the cribs. The transport was on its way from Kouli to the Dzian Dziun Tchang. The men were tall and looked healthy, pleasant and agile. Luckily I was not obliged to carry out my threat of despatching the whole convoy to a better world, because I should have had some difficulty in doing so.

The direction of the road was at first $300^{\circ}$. The same mixture of gravel and sand as yesterday. On the left, at some distance, a slight rise in the ground had been noticeable since yesterday approximately in a $\mathrm{N}-\mathrm{S}$ direction. The ground rose very slightly. We reached the higher ground in about $31 / 2$ miles and went along a slight valley that crossed it and again led us up on to it. The road now ran across a large, level plain of sand mixed with gravel. About 14 miles from Kufi or Ku-shui ( 45 li ) we came to the remains of a shed or temple. Next to it stands a cottage inhabited by a Chinese priest. By the side of it there is a well with water 1 I $/ 2-2$ arshins below the surface. - In the SSE at a distance of $10-15$
miles mountains were visible. The road took an ESE direction. About 2 miles from there we reached a group of mound-like hills, among which white and brick-red rock protruded. Beyond them the ground became slightly uneven. In the lowest places the sand lies in heaps, on which creeping plants grow. About $21 / 2$ miles further on we again came to mound-like hills with a small surface of rock exposed here and there. The road winds among them, going over one or other from time to time, always in the same very $\mathbf{E}$ direction. In a couple of spots we saw creepers on tufts between the mounds. We reached the Sha-chuan-tzu sarai about 10 miles ( 35 li ) from the hut near the ruin. The Chinese calculate the distance as being 80 li ; I make it about 22 miles. We were now in a thoroughly mountainous district. Considerable mountains rise up $S$ of Sha-chuan-tzu.

During the day we met 2 arbahs with travellers and again a dozen settlers from Honan. This time two extraordinarily ugly old women tripped along with their unnatural gait on their atrophied tiny feet among the men. All were very lightly clad. - At Sha-chuan-tzu there are 3 sarais, I mapoza station and a post of 4 men of the Hami infantry battalion. I spring and I well; water very saliferous. - Snow from November to March, i/4 to $1 / 2$ arshin in depth. Burans are common in winter and spring from the $W$ and sometimes from the F. Rain 3-4 times a year between March and September.

The road still continued in an ESE direction over ground consisting of mound-like November gravel hills of various height and size lying close to each other. In places the road-tracks Hsing-Hs had exposed the surface of the rock. The road was sandy and loose. The course was often Hsia stati very much to the E . After about 7 miles we reached a level, sandy plain running corridorlike between the hills. The road went along this for about $5 \mathrm{I} / 2$ miles, leading us to a clay hut inhabited by a Chinese priest. Next to it lie the ruins of a temple, probably destroyed during the Dungan revolt. Here there were two wells. The water was saliferous. Just beyond the hut we crossed a ridge of the hills, whereupon for several miles we travelled along a level sandy plain, enclosed on all sides by hills and mountains. Along this we reached the foot of a slightly larger mountain ridge, red in colour, and followed it eastward. The course from the hut was due E, at times ENE. We entered a narrow valley between the mountain on the right and a smaller one on the left. There was an incalculable number of small stone cairns along their foot like road-signs. They are piled up by passers-by who hope, by building a little cairn, to secure the protection of the higher powers on the long and trying journey. The road turned to the right and, after ascending slightly, took us over the mountain ridge on the right. There are hundreds of these small cairns along the whole route across the mountains. Patches of snow were visible in the crevices. For a good distance the road goes over a denuded spur of a mountain.

A picturesque temple that looked beautiful in the rays of the sun in such wild and inhospitable surroundings, stood on the crest of the mountain. One of the priests was at the moment performing, with a considerable display of virtuosity, first on a drum and then on a hanging metal disc. The sound was re-echoed several times until it died away in the distance in the boundless desert. Another priest came out to meet me and begged for alms. I told him I was a poor scholar who could at the best share my great wisdom and experience
with him. He seemed to think that he had enough of that commodity himself, but was almost prepared to use force to obtain money.

The aneroid barometers indicated 607.1 and 602.2 , the hypsometer +93.85 . The Hsing-Hsing-Hsia station lies about $21 / 2-3 \mathrm{I} / 2$ miles from the pass. The whole distance is supposed to be 90 li . I should call it $26-27$ miles. The pass seems to be wrongly marked on the 40 verst map, for, as already indicated, it is at most $31 / 2$ miles from H sing- H sing- H ia. The Chinese reckon the latter distance as io li. The mounds, hills and mountains are in a chaotic jumble, and as I was occupied in practising Chinese, I will not attempt to describe their direction etc. Hsing-Hsing-Hsia lies between two small mountains at the bottom of a gorge, a couple of hundred paces wide. It consists of 3 sardis situated on either side of a small impanj. The garrison is made up of 7 men under the command of a Shytchan belonging to the putui of Hame. There are two wells with plenty of good water and a mapoza station. The snow is $6-7$ vershoks in depth and lies from November to February. There is rain a couple of times a year between April and September. Buran are common in winter and especially in spring. Usually from the W , though often, too, from the E. There are plenty of kekliks in the mountains.

November fth. Day broke grey and cloudy. We started in $-8.2^{\circ}$ R. and a high west wind. For a short Ma-lien-ching$t z u$ station. itself among small, mound-like hills. $21 / 2$ miles beyond in a SSE and S direction we reached a plain, strewn with creeping plants and open to the $S$ as far as we could see on such a cloudy day. We crossed it in a SE direction and reentered the mountains after $4-5$ miles. The ground, which had been sandy and loose in the gorge and over the plain, was again firm. The surface of the rock protruded in many places.

Some distance into the mountains there was a miniature mao. Two low bars in front of it were so drenched in waggon oil that the ends had become swollen and looked like a couple of black heads, dripping oil. A little further on the ground takes on the character of long ridges and conical peaks, of no great height and divided in places by open patches. The soil here was red clay. Salt patches were visible here and there. The mountain ridges developed long slopes until about $4 \mathrm{I} / 2-5$ miles from the miniature temple they spread out into a large plain, open as far as I could see. The ground rises slightly to the S. Shortly before Ma-lien-ching-tzu spiky plants and low reeds appeared. The distance is reckoned by the Chinese to be 80 li , while I estimate it at $20-2 \mathrm{I}$ miles.

Ma-lien-ching-tzu consists of two main groups. One contains the ruins of an impanj, in which a post of 12 men was still stationed. 3 sarais and 3 wells with good water. The level of the water was 2 I/2-3 arshins below the ground. There was no mapoza station. Letters are carried to the post by soldiers. Snow from November to March, 5-6 vershoks in depth. Rain 5-6 times a year between May and September. Burans are common in spring and autumn. In the course of the day we met 8 arbahs and about 15 settlers from Hsian and Honan. One of them walked with small, springy steps and carried his slightly bulging equipment, done up into a parcel, on a narrow springy board.

The morning was cold, but calm, when we resumed our journey. In contrast to the November previous days the course to-day was practically S. To the S and SW of Ma-lien-ching-tzu Ta-chienstands a solitary and rather larger mountain at a distance of a few miles. We reached and station. almost skirted its eastern point after crossing a stretch of sandy clay soil. The road crossed a small hill running eastward from the foot of the mountain. The ground here consisted of a mixture of gravel and sand. In the E, SE, S and SW the plain seemed to be bounded by mountains. When we reached the top of the southern foot of the mountain on the right, we espied an opening due W with level ground. The telegraph poles ran due S until they were lost in the distance. About 12 miles from Ma-lien-ching-tzu we came to and crossed a group of moundshaped mountains with a surface of black gravel except in those places, where the grey surface of the rock protruded. $S$ of the group of mountains, a mile in width, we found ourselves again in the same plain. On the left a long, lesser mountain ridge came into sight, running at an angle to our road. The vegetation had become more and more sparse in the course of the day's journey. There were long stretches without a trace of vegetation, and when grass appeared, it was mostly thorny plants that would not even satisfy the undiscriminating stomach of a camel. In a couple of places white deposits of salt could be seen. The road is firm and good for the greater part. It was only in crossing the group of mountains that it was stony and for a couple of short stretches deep and sandy.

We met rather less than a dozen intrepid settlers from Honan. One of them was at least 50 years of age. An army transport of 16 arbahs enlivened the dreary plain for a short time. It was accompanied by a tungling and his wife and child and a dozen ludziun troops from Chihli. Ta-chien-tzu is not far from the ridge of hills referred to on the left. It consists of 4 sarais. There are 3 wells (saliferous water) and a spring with good water. The mails are carried by a post of 6 men from the garrison at Ansi. Both here and at Ma-lien-ching-tzu the sarais were very bad. Snow from November to March, up to $1 / 2$ arshin (?) in depth. Rain is very rare, at most once or twice a year during the spring and summer. Easterly burans are common in spring.

The road resumed its SE direction and continued across the same plain, which rose November slightly southward. The soil was sandy clay. Tufts of reeds and spiky grass occurred Hung-liuat rare intervals. About $4 \mathrm{I} / 2 \mathrm{miles}$ from the sarai we crossed the northernmost of three yuan-tzu. low mountain spurs coming from the east and running close to each other. The two others do not come up to the road. A little $S$ of the last lie the ruins of Sha-chuan-tzu near a spring, about 7 miles from Ta-chien-tzu. In the S a hill coming from the W was visible and the road took a distinctly ESE course until we had rounded its easternmost point. The same plain continues southward, but now in a tongue, $\mathrm{I}-\mathrm{I} \mathrm{I} / 2$ miles wide, enclosed in the $\mathrm{W}, \mathrm{S}$ and E by mountains. $2-3$ miles from Sha-chuan-tzu we left this unusually long plain behind us and were among the mountains in the $S$. For $2-3$ miles the road wound between the long hills covered with black gravel and small stones. Then for another $2-3$ miles over another small plain and then again mountains that continued until we reached the Hung-liu-yuan-tzu sarai. This lies in a small open space, enclosed on all sides by the same small, black hills that seem to rise up, one behind the other, without cessation. Three poor sarais, a spring
with plenty of good water and a large miao is all that the place has to offer to satisfy spiritual and physical needs. A post of II men maintains the postal communications. From Hung-liu-yuan-tzu an arbah road leads to Tun-huang. The distance of 310 li is traversed in 4 days, 90 each on the first three and 40 li on the last. During the first day there are only the ruins of a sarai with water. The second day takes you through country that is marshy round the river Sulei Ho. On the second day and on the others there are sarais with water. Between November and March there are up to 5-6 vershoks of snow. Rain is extremely rare, falling at most once or twice during the summer. Westerly burans are common in spring; they also occur in winter, but more rarely. The Chinese reckon the distance as 80 li (though the hilly ground should make it 90 li according to the arbahkeshes). I made it about 20 miles. The road is good, though tiring in places for arbahs, when it goes up stony inclines or over a plain with loose soil.

November 8th
Pei-tun-tzu.

For about $5 \mathrm{I} / 2$ miles the road winds between mounds and hills, now and then crossing one of them. The main direction in this labyrinth is S, SE and ESE. The mountains are the same in character as yesterday, a chaos of low hills with soft outlines covered with a dark, often black, layer of gravel and small stones. Points of rock and spurs protrude near the road. When the road leaves these mountains, a large gravel plain opens up in the $\mathbf{E}$. In the $S$ the horizon is bounded by a chain of long, low eminences that run eastward from the last mountains approximately until they reach a solitary mountain visible in the SE. For a time the road traversed this gravel plain, the surface of which soon became slightly uneven, with short, irregular undulations.

At about the 8th mile lay the ruins of a sarai without water. In the distance on the right a chain of small hills was visible. We crossed a rather more uneven stretch and at the $14{ }^{\text {th }}$ mile came to a hollow in an E direction. The ground which had been practically barren during the whole journey with large salt deposits here and there, now put forth poor grass and reeds. Not far from the beginning of this comparatively narrow valley lay our goal for the day, a little group of houses at the foot of a tuntai tower built on a mound.

The deposits of salt in the neighbourhood are unusually large. In some places they might be mistaken for snow. Many kekliks chattered on the mountain sides near the tuntai tower and round the ruins of a miao. The distance, which the Chinese consider to be 70 li , cannot be more than $15-16$ miles. 4 sarais, very defective, and a post of 16 men from Ansi, housed in a miniature impanj, is practically all there is in this place. Snow from the end of November to the end of February, $5-6$ vershoks in depth. There is plenty of water obtainable from a spring.

November gth.
The town of Ansi

The night was mild, but the day dawned cloudy and grey. I could have bet that there would be snow. We started at 6 a.m., but not before I had shot 5 kekliks, with which the mountains were simply seething. The road runs in a SSE direction. The small hills round Pei-tun-tzu grow lower and lower until in about 4 miles the last small spurs of the mountains, covered with gravel, finally disappear. Before us stretched an infinite plain of gravel practically devoid of vegetation. In the SW we noticed a long dune-like fold in the ground at some distance and later the road led across several small ones in an $\mathrm{E}-\mathrm{W}$ direction.


ANSI
Ansi is surrounded by a wall, $31 / 2$ fathoms high, with a crenellated parapet. The parts of the wall, in which the inner gates are enclosed, and the outer archways are of baked bricks, the rest of the wall of unbaked bricks and very dilapidated. Sand dunes extend up to the parapet of the E wall. The fosse has disappeared in places. It is only flanked by the gate projections; the other wall projections are insignificant. Outer archway 16, gate projection 36 and inner archway 26 paces in depth. The space inside the wall is uninhabited excepting the centre and a street running from the $E$ to the $W$ gate. The surrounding ground is covered with grass. There is a ledge in the $N, S$ of and parallel to the river $S u-10 H o . S$ and $S W$ of the town wall an ariq, lying high. In the $S$ well-preserved massive walls of an abandoned town. The houses in the vicinity quite small. In the E there are practically none. In a $W$ and slightly WSW direction there is a row of single houses and comparatively numerous trees, running from the town about $2 / 3$ of a mile wide. They continue uninterruptedly for $14-16$ miles. -The Su-lo Ho is swollen in the spring and is said to be over 3 m deep for $3-5$ days at a stretch. At other times it is easy to wade or ride across. There are no materials for building bridges except in the tree-covered area referred to. - Drawn by the author.

At the 7 th mile we stopped for a few minutes outside a hovel built with a slight solitary rise in the ground as a back wall. There was no water there, but it was inhabited by an elderly, hunchbacked Chinese with a face as wrinkled as a withered apple. The old fellow has to fetch his supply of water from a distance of $7 \mathrm{I} / 2$ miles and lives on bits of bread and scraps that he collects by begging. He fully expected me to believe that he often drank no water for three days at a stretch.

The ruins of an inn stand about 5 miles further on. Not far off on the left of the road we saw some dunes of pure, fine sand. The soil in general is sandy clay covered with a thin layer of gravel. About $2 / 3$ of a mile later the almost barren plain is covered sparsely with tufts of thorny grass.

We reached the river Su-lo Ho after covering about 22 miles. On the northern bank there is a temple enclosed by a wall built, according to a Manchurian and Chinese inscription on a stone, in the 19th year of the reign of the Emperor Kinlung. The caretaker had seen better days. During the war he had risen to the rank of tungling and had commanded as many as two or three ins. When fewer troops were required, he was dismissed, and according to the custom of the Chinese Government without so much as a djen's pension and now lives as caretaker of a temple more or less on charity. In Kashgar the watchman of the Chinese cemetery was a wtidu», formerly the commander of the troops of a military district.

The temple is sometimes visited by travellers who are forced to make a stay owing to the high water. In the spring and occasionally in the summer the river rises to such an extent that it is impossible to cross for 3 or 4 days. In the intervals it dries up and becomes a small river or even stream. Where the road crosses the river, the bed is about 150 fathoms wide, while the area that gets flooded may be estimated at fully $1 / 3$ of a mile, to judge by the ground on the $S$ bank. A pile of earth on the bank indicated that an attempt had been made at some time to throw a bridge across the river. The necessary material is available about 2 miles to the south on the left bank of the river. The surface of the latter is uneven with large salt deposits as far as the town wall. Close to the wall there are some isolated houses and fields. A strip of forest extends far to the west on the $S$ side of the town.

The town area is barely $2 / 3$ of a mile square with 9 bastions on each side, including the gateways and corners. After a journey of ir days across the desert you cannot repress a feeling of disappointment when you pass within this very dilapidated wall. It is almost like entering another desert, the ,place is so deserted and wild. Almost the whole S part of the area is low marshy ground with strong salt deposits, not built on. The beginnings of two streets crossing each other are visible in the middle of the town, running from the four points of the compass in the direction of a $\# k u l o »$ tower, the upper part of which has been demolished, probably by the Dungans. There is a well under the arch of the tower. What houses! Compared with Ansi, Barkul is a well-built town. The sarais are no better than the worst in the desert, the shops and other houses are hovels and here and there lie the ruins of a temple destroyed during the Dungan revolt. I had seen no such disconsolate town anywhere on my journeys through this territory, so far removed from the centres of China. - I estimated the distance covered that day at not more than $24-25$ miles. The

Chinese make out that it is considerably more than the official go li ( 140 or 150 li , which, however, is wrong).

The northern part of the town is as little inhabited as the southern. The population of November about $5^{00}$ families groups itself round the two streets crossing each other at right angles Ansi. at the "kulon tower, or rather, the beginnings of streets, for the one running N -W gives up quite close to the tower and only the $E-W$ street extends almost to the town wall thanks to some empty spaces. The wall is dilapidated and partly covered by high sand dunes that reach up to the parapet of the E wall both inside and out. I took a walk with one of the officers of the garrison along the top of the wall. He took all sorts of precautions before venturing on to some parts of the crumbling old wall.

Trade is mostly local, though some merchants do business with Mongols, especially in the mountains in the S , but also as far as Uliasutai. To-day I had an opportunity of seeing a large Mongolian camel caravan arriving from the latter place. The men bring Russian cotton goods and buy up grain. There are scarcely a hundred shops, large and small together. The two largest have a turnover of $30-40,000$ lan annually and deliver the wool they buy to Bautu. A Sart deals in Russian goods. - The population is exclusively Chinese; there are no Dungans.

There is a Tsouguan resident in the town, to whom the Shenguans at Tun-huang and Yumen are subordinated. The garrison, the actual number of which probably does not exceed about ${ }^{5} 0$, is under the command of a Hsietai who also commands the garrisons at Hsiao-wan, Pu-lung-chi, San-tao-Kow and Tashitow and the posts along the road to Ma-lien-ching-tzu in the N and San-tao-Kow in the E .

There are no noteworthy buildings or temples. $2 / 3$ of a mile $S$ of the town stands the wall of the abandoned »new (Chinese) town», "Sincheng». It was built, according to the local people, because it was impossible in the old town to cope with the drifting sand that piled itself up against the walls. However, fire sent down from heaven destroyed it and it was then finally abandoned 60 or 70 years ago and the inhabitants returned to the old town. There are scarcely any traces in it of former buildings and the mounds of sand reach up to the battlements of the walls.

The population of the district, which is entirely Chinese, has collected in a S, SW and W direction from the town. $N$ of it there are only a few houses and along the road to the $E$ the fields form some independent oases at distances of several dozen miles from each other. In the S, SW and W, however, the villages form a cultivated area extending for ${ }^{1} 4-$ I 5 miles in a W and SW direction, with intervals of barren stretches. The saliferous, low-lying region is intersected by numerous ariqs with plenty of water from the Su-lo Ho. Wheat, tchumiza, tchinkho, oil plants and peas are grown. The average yield probably does not exceed $4-5$ fold. The stock of cattle is small. The cattle are not of good breed and are still as thin as scarecrows even in the autumn. There are no grazing grounds to be seen.

The first Chinese population probably consisted of soldiers who were settled on the land by General Jang y Tchun with a military organisation, when he reconquered the district in the second year of the Emperor Kienglung's reign. The names of the villages nearest
the town indicate this: Tchen in, Tsoà in, Ju in and Tsung in. The ruins of towns and impanjes that are seen SW of the town belong to that time and are inhabited by Sarts from Hami (?). It is difficult to obtain information from the Chinese who take no interest in anything that is not Chinese; nothing else exists for them. To quote a characteristic instance: about 18 miles SW of the town there is a fairly large ruin of a town or fortress with walls as much as 9 fathoms high. Using one of these walls as a back, a small Chinese impanj had been built, which was also derelict now. I asked a Chinese who lived close by, a venerable greyhead, for information. Yes, he could tell me everything. The fort was called Lei-tun-hsiao-cheng, the town to the west of the comparatively recent Chinese village of Lei-tun, was built some decades back and had been abandoned 20-30 years ago. I took it, of course, that he was talking of the little Chincse fort, the presence of which profaned the venerable walls that were going to rack and ruin, and tried to persuade him to tell me something about them, but he looked very surprised and said that he knew nothing, in fact it would not have astonished me if he had said that he had never noticed them.

There are the following villages in the district, starting from the town:


If 4 adults are reckoned per house, the Chinese rural population is about 5,000 . Town population 1,500 . 'The taxes levied in the district are said to amount to 2,470 tan.

After a day's rest after the journey of in days through the desert, we started for Tunhuang this morning. I really think Ansi is one of those places, in which nobody stays a moment longer than he is forced to. The town itself is bare, but many trees grow on the cultivated land that encloses it in a wide semicircle. In the summer these surroundings must be buried in verdure which cannot fail to delight the eye of the traveller since, whatever direction he comes from, he must have journeyed for several days across the desert.

The road goes SW over low-lying ground with very saliferous soil. In some places the water in several ariqs had overflowed and formed slightly boggy places. The houses are numerous, but small, surrounded by many trees that form small groves here and there, mostly W of the town. About I $3 / 4$ miles from the town the limit of the cultivated strip running almost due $W$ from the town is reached. $2 / 3$ of a mile due $S$ of the town tillage ceases. This constitutes the northernmost of three parallel cultivated areas, divided by barren tongues of desert, 2-4 miles wide, running in a $W$ - E direction.

We cut obliquely across the strip of desert. The ground consisted at first of sandy clay which soon gave way to pure, fine sand, which was mixed with clay and gravel further on. About a mile and a half from the edge of the desert we came across the ruins of a tuntai tower next to the road. After about 3 miles more we came to the next cultivated area and at the beginning of it to the ruins of a large abandoned fort with a gateway to the N . In size and construction the wall was reminiscent of Chinese town walls, but unlike them it had only one gateway. Close to the north wall the ruins of two fairly large buildings were visible, one inside and the other opposite outside the wall. The inner building contained remains of walls that divided it into rooms. It all looked not more than too to 200 years old. The Chinese say that there was a Sart town there. Just beyond the ruin the village of Sankung begins, S of which lie the ruins of Kua-chou-cheng, destroyed during the last revolt, according to the Chinesc. Their size is $1 / 2 \times 1 / 3$ of a mile and there are 2 gates to the E and W . Inside the wall only the remains of a miao are visible, everything else being levelled to the ground. The village of Tugung (Tiugung?) surrounds the ruins and immediately to the W of it there is a small piece of ground enclosed by a high, well preserved, crenellated wall with a Chinese inscription over the gateway. The place is inhabited and is called P'usa (town or village?). SSW of this we entered the region of the village of Shandjugung and immediately after came to Kua-chou with ioo houses. At a distance of a mile or a mile and a half we saw on the right and left of the road, at about the with mile, small impanjes which are said to be deserted. The village of Pa-kung begins about this place. On its boundary we passed a miao, after which for another couple of miles the road passed between ruins of houses, probably destroyed during the Dungan revolt.

When the ruins came to an end, we chose one of the two tracks, both leading SW , that seemed to be more used for traffic. It wound with many turnings across uneven, porous and very saliferous ground with a little vegetation in the shape of prickly, dry, low grass-like plants. The direction became more and more $W$, and as it showed a distinct
inclination to go NW after a few miles, I realised that we had gone wrong. A couple of Chinese, who were carrying branches on carts drawn by oxen, pointed out a large ruin about 7 miles to the S , on the W of which the right road ran. There was nothing for it but to ride there. This was rather heavy work for the horses which kept breaking through the porous ground. The sweat poured off them and they made slow and laborious headway.

After quite $21 / 2$ hours' heavy going we reached the ruin, two massive clay walls, about 9 fathoms high, enclosing two more or less square pieces of ground, one about 3 times the size of the other. The smaller one, the walls of which are considerably higher and equipped with small, turret-shaped massive corner bastions of clay, lies just outside the NE corner of the larger ruin. The part of it facing N had disappeared to a great extent. Outside the S part lie remains of a smallish annexe. There are slight bastions on some of the corners. It is all reminiscent, on a small scale, of the walls of Idygot shahr. A small deserted Chinese impanj had been built with the smaller ruin as a base.

While we were looking for the track, I caught sight of a flock of dsjerans or kiyiks (burkak in the Sart language, qarakuiruk in Kirghiz), 7 in number, grazing close to the south wall. After searching for a time I found a means of getting to the top of the wall, but the shy creatures had scented danger and started off. I got a good sight of them, however, about 400 metres beyond and sent four shots after them. They continued to retreat, but two were evidently wounded and only moved on slowly with long halts. I called to Lukanin to set off after them, but on the porous ground this was easier said than done. He only got one of them, a female, hit by two bullets. With a couple of the pheasants that abound around Ansi, shot earlier in the day, this will be a welcome change from our monotonous diet.

Loading our bag on the back of a horse, we set off to find the right track. Of three tracks going in a SSW direction we chose the one that bore the clearest signs of wheels, horses and mules, and set off. The sun sank lower and lower and finally dropped below the horizon. The wonderful, warm air of the day was succeeded by quite perceptible cold that was heightened by an evening breeze. The surface of the desert was very uneven here and, as if torn and tumbled by unknown forces, had taken on inexplicably fantastic shapes that limited the view very much. We looked in vain for a signal light and stopped from time to time in the hope of hearing a dog bark. The deathlike silence that enveloped us was only broken by the sighing of the wind and in the moonlight the plain, with the shadows of its bizarre shapes, seemed like a gigantic cemetery. When we had ridden for a few hours it became evident that we had again taken the wrong road. We were completely at a loss. Our signal shots evoked no reply. There might have been water quite close to us, but it might just as well have been dozens of miles away. To ride back to the nearest village would have been a matter of $4-5$ hours. While I stood considering the situation, I caught the sound of an unwieldy native cart at a great distance. The sound drew nearer and after a time we saw a cart that had come from the sarai, where my men had camped. In another $21 / 2$ hours we reached it at last. The excellent fellows had eaten their pälaw and gone to roost, Djan wrapping himself in my blankets in order to keep them warm, so he said, purely out of consideration for his master. I need scarcely add that their rest was neither long nor sweet.

The station lay about 2 miles $S$ of the ruin that the Chinese call Lei-tun-hsiao-cheng and had two fairly large sarais and plenty of water from a well. The water was about 4-5 arshins below the level of the ground. The station lay close to the northern foot of the Sansiantzy mountains. On the top of the mountain a group of buildings was visible belonging to a temple called Tie Shang. The distance from the sarai to Ansi was $16-17$ miles.

There is not much to be said about the road yesterday and to-day. It follows the northern slope of the Sansiantzy mountains and goes over firm ground consisting of fine gravel and sand. It can quite fairly be described as flat with a drop to the north, for the few elevations extending nothward from the mountains are nothing but insignificant undulations in the ground. Yesterday we rested at Tien-shui-ching-tzu station, where there are two miniature sarais, a temple and a well with slightly salt water. The water is $4-5$ arshins below the surface of the ground. In spite of its small size the Government sarai, in which I spent the night, was excellent. At the half distance lie the ruins of a sarai with a stream with plenty of water, flowing from the south. The clear water is salty. It is said to come from a marsh. The place is called Lutsougo, i.e., "grass of the marsh in the gorget.

The ruins of another sarai lie halfway between Tien-shui-ching-tzu and Kua-tien-tzu. The well next to them had dried up. Close to the sarai there was a tuntai tower of a peculiar hexagonal shape that I had not seen before. The Chinese told me that this form of tower was much older than the usual ones, though the latter are sometimes also of considerable age. However, they could give me no idea of its age. Next to the tower was a mound of earth enclosing a small square space, probably the remains of some small military post, obviously very old. At Kua-tien-tzu, too, there were two small sarais, the one belonging to the Government being, if possible, even more comfortable than the last one. A comparatively large temple stands on a small hillock. Slightly salt water is obtained from a well. The water is $6-7$ arshins below the ground level. Both distances are said to be 70 li , but I estimated the former at 17 miles and the latter at 19 miles. There seems to be little traffic on this route. Yesterday a caravan of 19 camels camped close to us, en route for Tun-huang.

Kua-tien-tzu has snow in December, but it does not lie more than 3-4 days. Rain is rare and frequently does not occur at all. Burans are rare.

The ground close to the sarai is sandy and deep, but soon the road becomes firm again. Reeds and coarse grass grow on either side. The ground is bare in many places and looks like a sea that has congealed in the midst of a storm. In $5-6$ miles we reached the beginning of the Tun-huang oasis, a strip of woods and houses belonging to the village of Ching-shuihsien. The station of the same name, crumbling into ruins, lies about $2 / 3$ of a mile further on. There is a well there and a miao. Two caravans of camels had encamped close to it. One of them, consisting of 80 camels, with Russian goods from Kashgar to Lop Nor, Tun-huang and Kanchow, was now on its way to the latter place with seed and wool from Tun-huang. A consignment of tea is to be carried from Kanchow to Kashgar. The other caravan of 54 camels belonged to a Chinese from Tun-huang and was carrying grain

(bought at 6-7 th., sold at $11-12$ then per fou) to Kanchow, whence it will return with gaolyan tobacco (bought at 6-7 fen, sold at $17--18$ per din).

About a mile $W$ of the Sindianza station a small deserted impanj is seen on the right of the road. On the left rise the ruins of a group of towers or rectangular columns of unbaked bricks, tapering slightly towards the top. They are placed as shown on the plan given below. Four are fairly well preserved, especially $a$ and $b$, and approximately o thesame size. The tops had fallen to pieces, but $a$ still fmea
 sure about $41 / 2$ fathoms and $b 51 / 2$ in height. On the E side of the columns there is a small aperture at a height of about $21 / 2$ fathoms. To the N the opening faces a niche, the bottom of which is about 1 fathom from the ground. It is the height of a man and has a lattice-work arched roof formed of 4 walls inclined towards each other. In one of these niches there were the bones of a large animal and the horn of an ox.

The road goes on through the trees which become more densely populated. We saw a couple of "huang jang» (gazelles) and a great many pheasants. Many of the houses were enclosed within massive clay walls with turrets at the corners, a sure sign of the prosperity of their owners. A large number of the fields were under water which made the country look like a large fish farm with its ponds at different levels. The road was also submerged for the greater part, the water having been released from Tun-huang. As it approaches the town, it cuts deep into the ground. -- The distance covered today is given as 70 li. Owing to numerous halts of indefinite length I was unable to calculate whether this was correct, even approximately.

November sEth. The town, which lies on the flat bank of the Tang-ho, about 100 fathoms wide, consists of Tun-huang. (wo parts built one within the other and enclosed by walls, the eastern part surrounding
the walls of the actual fortress that face south and east. A modest bazaar street runs from the eastern gate to the eastern gate of the fortress. The shops are without exception insignificant, and yet life pulsates here in full measure as in most of the other towns in Central Asia. If you take a walk along the street about noon on a sunny day, you find it simply swarming with people. The monotonous Chinese crowd, dressed in blue, is enlivened here and there by some Mongols from the mountains in the S , with their dark, weatherbeaten complexions, bits of sheepskin, lined with red, slung over their heads, so that the crowns are bare, short fur coats with borders of red and green cloth, bunched up to form a huge sack at the back, and ungainly top-boots like those of the Surgan summun Kalmuks. Cross-streets from the bazaar street traverse the outer part of the town from N to S . Excepting the southern part, where a broad, empty space runs along the wall and serves as a grazing ground for camels, the whole area is densely covered with small, modest clay houses. A couple of temples, a ruined memorial gate and a few shady trees rise above the dull grey mass of houses. Near the south wall there are many large warehouses for the grain supply of the district. The town wall is neglected and dilapidated. The area of the actual fortress is divided into 4 parts by two streets that cross each other in the middle of the town. With its memorial gates, temples with bells tinkling in the wind, cramped official buildings and centuries-old gnarled trees, the little town possesses a charming air of antiquity. The streets are lifeless, nothing is visible but a couple of debilitated old opium smokers and a crowd of loitering street-boys. In the temples there are old mural paintings depicting the 8 chief gods, the day of judgment and other allegorical subjects. The roofs of the temples, the fretwork pavilions on the gates and corner towers and a tower in the middle of the town lend a touch of the picturesque to the spot.

A Shenguan is resident in the town. The garrison of rather over 200 men consists of a kind of town militia, armed with rifles fired by means of a wick that passes through the cock. It is commanded by a "Tsandian», a kind of general. During a recent disturbanse it showed its unreliability and even failed to protect the myrmidons of the Shenguan, several of whom were killed. The cause of the disturbance is said to have been the refusal of the Shenguan to allow the population to decide, whether it was to pay its taxes in grain or money. Now all was quiet again. The Shenguan had one of the oldest inhabitants whipped to death and some of the leaders of the revolt were sent to Suchow for trial; others preferred to seek safety in some distant place.

The oasis extends 80 li to the N , 10 li to the $\mathrm{S}, 30$ li to the W and 40 li to the E . There seems to be plenty of water thanks to the presence of two large rivers, yet there are complaints of a shortage of water in the remoter parts of the oasis. In the $W$ and $S$ the inhabitants have to contend with drifting sand that has encroached upon a number of fields in the course of time. This is supposed to be the reason why part of the population has left, so that in that part of the oasis there are numbers of ruins of deserted houses. According to the statement of the mandarin the population had decreased from 2,400 families to slightly over $\mathrm{r}, 800$. The whole area consists of uneven ground with fields lying next to each other at different levels and intersected by ariqs, some high, some low, and with water of varying depths. The houses and fields are qrotected by many shady trees. The


## [UN-HUANG.

Tun-huang consists of 2 fortresses. The outer one - a wall, $3 \mathrm{I} / 2$ fathoms high, of unbaked bricks with a crenellated parapet. Outside the wall a protected space, about 3 fathoms wide, with a crenellated parapet, ifathom high, which has fallen to pieces in places. There was a fosse, but it is now missing in some places. The gates in the arches of baked bricks, single, built into ordinary wall projections. In front of them the parapet of the protected space is raised and an outer gate has been built in it. The wall projections are small, do not flank the fosse, the corner projections likewise. On the ramparts in all the wall projections there is 1 and between them I , sometimes 2 , small tower-shaped clay buildings rising I fathom above the parapet and provided with loopholes towards the plain and the ramparts. The space inside the wall is densely populated with the exception of the $S$ wall and the southern part of the E and W walls, along which there is a large, open strip of ground. N a building containing the large Government grain stores. - The inner fortress - a similar wall, of which the crenellated parapet, archway and parts of the wall, in which the inner gates are built, are of baked bricks. The gates are protected by wall projections, 14 yds from gate to gate. The outer gate is 10 , the inner one 18 yds deep. On the ramparts above the gates there are pagodas of wooden lattice-work, in the corner and wall projections small clay buildings with loopholes. A fosse and external protected space only outside the walls facing the plain. The buildings of the outer town come up to the foot of the walls that face E and N . Unlike the very dilapidated wall of the outer town, the inner fortress is comparatively well preserved.

The ground is a plain with tilled fields often lying at different levels and intersected by many ariqs, sometimes high-lying, single houses, trees and small clumps of trees, clay walls and burial mounds. In the S and SE the ground is more masked and shaded. The $W$ bank of the river possesses the same character, but commands the E bank slightly. During the summer the ground must be fairly shaded. The river can be waded. $50-60$ fathoms wide, firm bottom, swift current, water up to the horse's knees. So much water is said to be drained
houses stand close together, which indicates that the population, though reduced, is still proportionately quite large for the area. The fields are well cared for and the houses look neat and prosperous. The whole oasis is rather reminiscent of the most densely populated parts of Kashgaria, though the population and method of building are different. Here in Western China for the first time you come across the custom that obtains in Manchuria of surrounding single houses with regular fortifications - a massive wall, several fathoms in height, often with four corner turrets. As in the neighbourhood along "peilus, the ox is preferred here as a draught animal. The carts are clumsy and heavy, and when harnessed, they lean forward very much. The wheels are large, mostly made of warped timber and often askew. The horses and cattle are not of a good breed and are half starved. Donkeys are more common than horses. The population consists entirely of Chinese from Kouli. Most of the villages are named after the places from which the inhabitants came originally.

The present town is supposed to have been built in the 20th year of the reign of the Emperor Tja tching, i.e., about 160 years ago, and it is said that the Chinese population immigrated at that time. On the opposite bank of the river the ruins of a massive fortress wall are visible. You can see that it enclosed an area of about $2 / 3$ of a mile. At one place the solid clay wall is still 8 fathoms high and originally it was even higher. This town or fortress is said to have been built by the Emperor Khantchou's famous general Pan Tchou (about 1900 years ago). When he retired with his troops, this Chinese border fortress fell into the hands of an enemy people (called Tchangtu by the present Chinese inhabitants). In the 2oth year of the reign of the Emperor Jun khö the town was retaken by his Dzian Dziun Pei tchen. There is a memorial stone in honour of this same Pei tchen in an old miao next to the N wall of Barkul. The ancient characters could only be partially read by my men. They mention a spring in the form of the moon surrounded by mountains. The people of Barkul say that the stone removed itself there from Tun-huang and that it had sunk so deep into the earth that it was impossible to dig down to its foot.

Among the sights of Tun-huang the inhabitants point out a spring which ha's the shape of the moon, lying among some sandhills. As my time was fully occupied and I was told that there was no stone with an inscription or any other memorial near the spring, I did not visit it. A horse of supernatural strength is supposed to dwell in its waters and appear at times to the elect. There is a similar legend at Barkul. The lake there has also been selected as the abode of a miraculous stallion possessing gifts not bestowed upon other horses. One night, when the herdsman was asleep, it covered a mare in one of the herds belonging to the Government on the shore. The foal that was born possessed supernatural qualities. It could travel thousands of li in a few hours. It came into the hands of a monk and carried him in one night to Sian. The mandarin there heard of the miraculous gifts of the creature and forced the monk to part with it for several thousand taels. He sent the horse to Peiping as a gift for the Bogdykhan, but on the way it fell ill and died. The connection between Tun-huang and Barkul and the similarity of their legends is curious and may, perhaps,
into the ariqs during the period of high water that the river can be ridden across even then. The ground is intersected by many roads, often sunk deep. - Drawn by the author.


Mural paintings in a temple at Tun-huang, representing various subjects wilh redbearded and hairy Linguanjic or Lin laoje as the leading actor and carried out at the time the temple was built in the gth year of the reign of the Emperor Kienlung.
have some historical foundation. At the bottom of the lake of Barkul there is said to lie a block of stone that fell from the surrounding mountains; it is alleged to bear an inscription, and is supposed to rise from the waves now and again and reveal itself to some astonished mortal.

A picturesque old temple, dedicated to the red-bearded and red-haired god Linguanje or Lin laoje, stands close to the ruins of the fortress wall. It is supposed to have been built in the 9 th year of the reign of Kienlung and has interesting old mural paintings with a good deal of gilt.

The principal occupation in the oasis is agriculture. Wheat, peas, millet, tchumiza, various oil plants and opium (the opium growing covers about $1 / 3$ of the whole field area) are grown chiefly, but also gaolyan, hemp and cotton on a smaller scale. The average yield is 7-8 fold. Grain is sold to Suchow, Kanchow, sometimes to Ansi and to the Mongols in the mountains to the S . Peas are bought at Ansi and opium is consumed in large quantities on the spot and is an important article of export to Urumchi, Lop Nor and Suchow. Cattlefarming is not carried on, probably owing to the restricted area. On each farm, however, there are at least 1 horse, 2 oxen and 2 donkeys. The average number of animals may be calculated, without fear of exaggeration, at 2,3 and 3 respectively. There are only small numbers of sheep and goats. The average prices are: for a sheep i lan, for a first-class ram 1.8 to 2 lan, for an ordinary ram 1.4 lan, for an ox 1 to 1.8 lan, for a horse $20-30$ lan and for a camel $50-80$ lan. - Not more than 1 tou per mou is sown. I tan 7 tou per 50 mou is paid in tax and 7 fyn of straw for each mou. The total amount of taxation for the district is supposed to amount to 3,700 tan.

The largest business in Tun-huang is owned by the same Ilkhamsjanoff at Urumchi, whose agent I saw at Hami. Here the business was started not quite a year ago. The branch is managed by Ahmidsjan Askarbajeff, an enterprising Russian Sart who managed the branch of the business in Lanchow for three years, where he learnt to speak Chinese fluently

## Mural paintings in the same

temple at Tun-huang as in the last illustration.

and married the daughter of a minor mandarin who had fallen on bad times, a Chinese girl, whom he converted to the Moslem faith. Askarbajeff bought her for too lan. He expects to sell Russian goods for about 10,000 lan annually. They are brought in small quantities by Sars from Turfan and Lop Nor. About 200 pieces of cotton cloth and rolled iron (about $20,000 \mathrm{djin}$ annually to the $30 \mathrm{smith} \mathrm{s}^{2}$ of the town) are the principal articles of commerce. Matá from Khotan has a good sale and Chinese and Japanese goods are brought from the east. I saw no Indian goods, nor are they said to be dealt in. Wool is bought from the Mongols in the mountains to the $S$ by Ilkhamsjanoff and a couple of Chinese, the agents of European firms in Eastern China. The total quantity that passes through Tun-huang is probably about $400,000 \mathrm{djin}$, equivalent to 200,000 sheep. The price is 10 lan per 100 djin. About $5-600$ djin of camel's wool at 12 lan per 100 din and 20,000 sheepskins at 3 itch. each are supplied by the same Mongols. Some Sars and Chinese are engaged in gold-washing in the tributaries of the Tang-ho, 3 days $S$ of Tun-huang. The annual output is said to be to ling (of gold?).

Tun-huang is connected by two roads of 14 and 24 days' journey with Tcharkhalik, a road of a little over 30 days (with only one small pass) with Sining and a road over Suchow and Chinta with Kuku Khoto. To Suchow the caravans go over the mountains in the S, where there is said to be grass (for horses?). A road of 6 days' journey (2 days without water) is said to lead to Turfan and another, still shorter (also partly without water) to the village of Bugas (immediately S of Hami). I was unable, however, to obtain details about these two roads. There are two roads to Kami, one via Hung-liu-yuan-tzu (4 days) and the other via Sufi or Ku-shui ( 6 days). Finally, there is a good road to Ansi. I felt inclined to send my baggage to Lanchow and make the journey myself with a camel caravan over the Nanshan mountains and Sining, but various reasons, principally shortage of
money (my funds had been transferred to Suchow, Lanchow and Hsi An) forced me to abandon the idea. It would have been interesting to investigate this road and especially another one (of which I could not obtain details) from Tcharkhalik to Sining. They are said to be suitable for traffic all the year round, though in the winter the supply of grass is almost entirely consumed by the cattle of the Mongols and Tanguts. The snow is said to be deep, but the top layer is so firm that horses and camels do not sink into it. Two Mongols, who described the road to me, assured me that the journey could be made with horses, but a Chinese declared that only camels could live on the poor grass.

In an administrative sense the oasis is divided according to the points of the compass into 6 lao lung (a kind of elder) districts. The villages are as follows:

| In the North | Number of houses | $\begin{aligned} & \text { Crop In the } S E \\ & \text { in tan } \end{aligned}$ | Number of houses | Crop <br> in $\tan$ |
| :---: | :---: | :---: | :---: | :---: |
| Tung nan hua | 27 | 240 Tingyen | 44 | 400 |
| Nan hu | 23 | 570 Sin Tingyen | 46 | 750 |
| Lungsi | $3{ }^{1}$ | 1,000 Tung tchengning | 12 | 250 |
| Tiedsjà | 17 | I 70 Sikhö | 52 | 800 |
| Tchingsui | 17 | $25^{\circ}$ Ning tchå | 27 | 600 |
| Tung tingning | 25 | 700 Sin Ningtchå | 21 | 750 |
| Sitingning | 19 | 500 Wi yen | 37 | 500 |
| Tchangsien | 19 | 500 Tung Wiyen | 20 | 400 |
| Tchuang lang | 42 | 1,000 Lan wi | 10 | 150 |
| Ningyen | 17 | 170 Sin Lanwi | 11 | 140 |
| Tchinngan | 30 | 700 Lanchow | 25 | 700 |
| Kuyen | 30 | 700 Sin Lanchow | 16 | 400 |
| Jentsha | 22 | 700 Ninting | 37 | 1,000 |
| Shang Jen tsha | 8 | 140 Sin Lanting | 5 | ${ }^{1} 40$ |
| In the $\mathcal{N} E$ |  | Sin Suchow | 31 | $75^{\circ}$ |
| Mundsjå | 33 | 300 Tchindsjå | $4^{2}$ | 300 |
| Sin Mindsjå | 40 | 1,000 T'chang hsien | 35 | 460 |
| Shang Fătchang | I 5 | 150 Tchung Sushow | 30 | 250 |
| Tung * | 26 | 750 In the South |  |  |
| Sin " | 70 | 750 Kulang | 20 | 400 |
| Pajen pukö | 5 | 8o Tchung Kulang | 26 | $75^{\circ}$ |
| Taudsjå | 27 | 500 Ue | 27 | 1,000 |
| Tchung Taudsjă | 12 | 200 Sin Ue | 17 | 470 |
| Tin hsien | 12 | 200 Tchung Khödsjă | 20 | 400 |
| Sin Tinhsien | 40 | 250 Shang " | 10 | 240 |
| Li hsien | 22 | 510 Tung Shantan | 15 | 520 |
| Sin Lihsien | 13 | 175 Si Shangtan | 16 | 170 |
| Nanhua | I 5 | 130 Sining. | 25 | 700 |
|  |  | Sin Sining | 25 | $75^{\circ}$ |



Not more than 5 adults can be reckoned per household for the rural population of Tun-huang $+4, \mathrm{I} 88$ inhabitants of the town. In the fortress there are 508 families numbbering $\mathrm{I}, 844$ individuals and in the outer town 470 families totalling 2,340 people. Only a few Sarts from Khotan, Lop Nor, Turfan and Kami are engaged in business here, otherwise the population is entirely Chinese.

The order of the Bogdykhan that the growing of opium is to be restricted and in the future to be done away with altogether - one of the principal sources of income for the population - is proclaimed by posters nailed on the walls of the houses. No restriction has been made yet, but the population has itself reduced the sowing slightly. I asked if they did not think the order unjust, but the only reply was that, if the Emperor wished it, it had to be. - In addition to keeping domestic animals, some Chinese carry on business in camel caravans. The number can scarcely be as much as a thousand (?).

We left Tun-huang early on the morning of the $18 t h$. During my stay there the weather had become considerably worse and the first cold snap was felt. On the i6th, in particular, the weather was bad. There was an east wind with several degrees of frost, raising clouds of sand and dust. I had intended to visit a mao called "Then fut tuna, lying in a gorge in the mountains to the S , and to proceed thence obliquely across the gravel plain to Kotadinza station. The pheasants and dsjerans were too tempting, however. I could not resist the temptation of shooting both and bagged a brace of pheasants and 2 dsjerans, unfortunately both hens. There are a great many of both. The pheasants are of a special kind and often appear in groups of about a dozen. The dsjerans are very common in those parts of the desert that border on the tilled fields of Ansi and Tun-huang. They are usually seen in flocks of 6-7. When a shot has been fired, they usually stop after a few bounds

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and stand irresolute as though wondering what to do. This manoeuvre is repeated several times during their flight. One day I got to within 50 paces of a flock, but, of course, had no gun with me. I have never been able to fire at them at less than 250-300 metres and at that distance you cannot see their small horns and altogether they appear extremely small through the sights.

After losing much time in shooting we reached the mouth of the gorge, when the sun was already so low that there was nothing for it but to give up the "thousand gods" and discover the sarai before dark. The mountains $W$ of the gorge are of pure, fine sand. $\mathbf{E}$ of it granite mountains rise beyond a belt of sand-dunes. Blocks of stone, about a metre in size, are visible here and there on the gravel near the mountains. Among the smaller stones some milky white ones like marble are noticeable.

Yesterday, the lgth, we made two trips. Starting at $5.30 \mathrm{a} . \mathrm{m}$., I absent-mindedly set off in the opposite direction from the one we should have taken. My men noticed the mistake, but said nothing, imagining that I was doing it purposely. I only realised my mistake after riding for over an hour and a half. This made the distance for the day about 43 miles. The weather was grey and cold, and an unpleasant wind buffeted our faces. In the afternoon and evening there was some snow and during the night the thermometer dropped to $-I^{\circ} \mathrm{R}$.

The journey was not long today, about 17 miles, but a high NE wind made conditions really bitter. I found a Mongol caravan encamped near the wall of Ansi. They were the same Mongols from Uliasutai whom we met, when we were here last time. In their blue clothes with appliques ornaments the men looked as though they were enjoying the fine weather.

Ansi does its biggest trade with the Mongols, especially with those in the S , whence 150-160,000 djin of wool, a few thousand din of camel's-hair and sheepskin are bought annually. The merchants send the goods to Bautu, where they are purchased by the agents of firms in Eastern China and are forwarded on. A number of Chinese men run these and other caravans. The number of camels is about 2,500 . Grain and other goods are supplied in exchange. Caravans come for grain as far as from Uliasutai. The tilled land in the oasis of Ansi is said to amount to 870 hou ( I hour $=60 \mathrm{mou}$ ). A $\operatorname{tax}$ of $2 \tan 8$ ton is levied per hour. I to 8 shy ( 1 dou $=10$ shan; $\mathrm{I} \tan =10$ dou) is used as seed per mon. Ansi is connected by caravan routes with Uliasutai, Kuku Khoto via Chinta and Sining across the mountains in the S by a road with several passes.

November 22nd. We rested at Ansi yesterday at the request of the arbah drivers. Since the evening Hsiao-Wan before a snowstorm had been raging with a strong east wind and great cold, so that the village. journey would have been anything but pleasant, apart from the risk of losing our way on the wide plain. I employed my time in finishing some work. The storm and the cold were so severe that it was impossible to keep the door open and I had to sit in my dark cubby-hole with a candle even in the morning, a luxury that consumed two candles out of my small stock.

Tonight there were again $-1 I^{\circ} \mathrm{R}$. and it was not much warmer, when we started.

The snow had stopped, but the loose snow was whirled about by a strong east wind that cut our faces and penetrated our furs and felt boots. The njais whom the mandarin had ordered to accompany me, did not deign to turn up, so we started without him, using the telegraph poles as guides. The road was snowed up and it was only by chance that we could follow it for a short stretch from time to time. We rode across the plain, which consisted of small undulations and hummocks, wading through snow-drifts and working our way from one patch, on which the snow was less deep, to another. Close to Ansi there are a couple of small farms, a small clump of trees 200 fathoms from the road on the left and another small one further off on the right. Otherwise we had an open plain in front of us with hummocks covered with a low, bushy, coarse plant. The whirling snow prevented our seeing the mountains in the $S$. About 3 miles from the town we came to a new, dry aria, coming from the west, along which some bushes and a little grass grew. We rode parallel to it for 4 miles until it ended at a small village, Peikango, of 3 or 4 houses. 12 miles from the town there was a small frozen river on the left which made a large curve to reach the road.
$2 / 3$ of a mile further on we came to a small mud hut which we entered in order to get warm. The hut had two doorways, the one with a door made of three boards with gaps of a couple of inches between them, the other entirely unprotected. To ensure better ventilation there was a fairly big hole in the roof. This desirable summer residence, unprotected from the winter storms by a tree or anything else, was inhabited by two men of the Ansi garrison who had been sent to look after 12 mares belonging to the Government. For this pleasant duty they were paid 9 then and $2 / 3$ to of grain monthly in addition to fuel which they could collect in the shape of fallen branches and brushwood on the plain. A small fire of twigs was kept going by a couple of passing Chinese. One of the soldiers was lying, apparently very ill, groaning on a clay bench. The Chinese were on their way on foot from Honan to Ansi in order to apply to the Hsietai, who came from the same village, for work. They carried their equipment, packed in two small boxes, on the half of a split bamboo pole. Two straw hats and two blue sunshades were tied to one of the boxes. One of the men had exceptionally beautiful hands, that looked like the work of a fine sculptor.

Very near the soldiers' airy hut, scattered houses and trees appeared on either side of the road and some distance from it, on one side close to the foot of the mountain in the S , on the other apparently along the river we had crossed immediately after our short halt. At this place it was 2 fathoms wide. The bridge was satisfactory. The grass increased considerably and was more digestible. The Hsiao-Wan oasis extends from E to W for 37 li and contains 67 farms with 30 hou of tilled land ( 1 hou $=60 \mathrm{mou}$ ). Approximately in the middle there is a small impanj with a gate facing W . The wall is rather dilapidated and 3 fathoms in height. The space within it is full of small mud huts. There are a couple of shops, 4 sarais and a large mao. The water is slightly salt, 3 arshins below the ground level, and is obtained from a well. It was difficult to judge of the road under the snow, but it may be considered good and quite suitable too for wheeled traffic. Judging by the fact that the wheeltracks cut deep into the ground in some places, the ground must be löss, at any rate to some extent. A little grain (very little) is obtainable at Hsiao-Wan and straw
in larger quantities. Snow may fall in the fth, but usually in the roth Chinese month and melts in the list. Sometimes it scarcely remains lying at all. Easterly buran are common in winter and spring; they also occur in summer, but rarely. They are so severe that they blow people off their feet. There is rain between the 4 th and 8 h Chinese months, but seldom. The distance covered today is estimated at 70 li. I make it $19-20$ miles.

November 23 rd. Pu-lung-chi (Bulunjir) village.

Last night the temperature fell to $-15^{\circ} \mathrm{R}$, and when we started it was $-17.5^{\circ} \mathrm{R}$, still with an east wind, i.e., a head wind. At first the ground was similar to that towards the end of yesterday's journey - hummocks and small mounds covered with grass protruding from the snow. On the left, at some distance, we saw the mountain that was indistinctly visible through the snowstorm during the latter part of yesterday. There were a few houses and some grass for about 4 miles. After that all vegetation ceased. 4 or 5 miles further on we crossed some low mountains coming from the right, with many small hills. In crossing the mountains we met a half-frozen Chinese monk, barefoot, his feet covered with ice. He could scarcely move them. I sent one of my men with a horse to take him to the nearest sarai, but he refused to accompany us. The „jai", who was some distance behind us, said that he found him lying, apparently lifeless.

About 50 li from Hsiao-Wan we passed the village of Show Taphu with a few houses, an impanj with a gate facing $E$ and a bazaar with a couple of shops. The ground was again covered with grass. The road had cut fairly deep into the ground and snow had accumulated in the slight valley to a considerable depth. Two or three farms lie about ${ }_{25}$ li from the village and ${ }_{5}$ li further on we reached the village of Pu-lung-chi (Bulunjir). It consists of about 50 houses ( 30 of them belonging to soldiers of the same kind of militia as at Ansi), a small bazaar, 8 shops and 3 sarais. The other villages in the oasis are as follows: W —? with 5 houses, E - Tjugo with 18 houses, S - T'ja ho with 8 houses, NE - Tjigo with 24 houses and E of Tjigo 37 houses. in o thou of tilled land. The garrison, commanded by a tusy, was encamped in an impanj with a gate to the S , surrounded by the bazaar. On paper it consists of a yin, but in reality there were scarcely 40 men with matchlock rifles fired by means of a wick. The organisation is the same as at Ansi and Tun-huang. Wheat, peas, opium, and tchinkhö are grown and yield a 10-12 fold crop. Snow from the 10 th to the end Chinese month. At times it only lies for a few days. A little rain between the 5th and 8 th Chinese months. Easterly buran are common and very severe during winter and autumn. - The road is quite passable. Distance go li, according to my calculation $24-25$ miles. - Water from wells at a depth of $21 / 2$ arshins. Straw and some fodder for sale.

November $24^{\text {th }}$. During the night the temperature was $-20.5^{\circ} \mathrm{K}$, but not more than $-19.5^{\circ} \mathrm{R}$, when San-tao-Kow we started out. Fortunately, the east wind was not so high now, - otherwise it would, village. indeed, have been difficult to make any headway. The weather was bitter. Just after Pu-lung-chi we crossed a small stream or ariq. The ground is a level, grassy plain, the grass being high and protruding from the snow in large tufts. In about $7 \mathrm{I} / 2$ miles we reached a small valley, thickly covered with reeds, where horses were grazing. i/3 of a mile later we
crossed a large, pond-like hollow by an apparently properly constructed embankment. About 4 miles further on we passed a river, a couple of fathoms wide, coming from the N , at the bottom of a gully 20 fathoms wide and covered with reeds. The local people call it Ling-to-ho. A little later we crossed two slightly broader river beds with similar watercourses. In one of them we surprised a fairly large wolf which decamped at a slow trot - an unnecessary precaution, as our rifles were on the arbah; even if I had had my rifle, I doubt if I should have had the energy to take off my gauntlets in the bitter cold and fire.

Just across the river valley stand the extensive ruins of the village of Su-chia-tan, destroyed during the Dungan revolt. A small impanj and a couple of miaos were visible among the ruins of the former houses. The village extended for several miles and penetrated. a good distance into a wood, where inhabited houses gradually appeared among the ruins. We crossed a similar river bed and about a mile further on we came to the San-tao-kow bazaar in the same wooded area. There is a lot of game in the neighbourhood, especially kiyiks and pheasants. The road was good. In some places it had cut deep into the soil. During the fth Chinese month (July according to our calendar) the water in the rivers sometimes obstructs traffic for 2 or 3 days.

The San-tao-Kow bazaar and its immediate neighbourhood contain 84 houses, a dozen shops, 3 sarais and a mapoza station. Four men are posted here. N of the bazaar lies the village of Udago with 36 households; the houses are visible from the road. To the E of it Sydago with 28 and Tunghu with 34 houses; to the NW Sanshuiliang with 60 houses. SE of Su-chia-tan (the village is in ruins) lies the village of Sydiatan, i.e. approximately W of San-tao-Kow, with 18 houses and an impanj, in which the garrison of San-tao-Kow is encamped. It is under the command of a tusy and its strength is nominally 1 in . It is also under the command of the Hsietai at Ansi and its organisation is similar to that of the militia already described. Judging by the name ntiao wan in, it must originally have been stationed by a bridge there. There is snow at San-tao-Kow up to the and Chinese month, $1 / 2$ arshin in depth. Rain is rare, it falls between the $4^{\text {th }}$ and 8 th Chinese months. Easterly buran are frequent in winter and spring. In summer they are rare.

During the night before last the weather changed. When we left in the morning, there were not more than $-10^{\circ} \mathrm{R}$. and we had the wind behind us. Immediately to the E of San-tao-Kow we entered a river valley which we followed for a time. The water was a couple

November of fathoms wide and very low. The local people call it the river San-tao-Kow. On the other side of the river is a level plain; for a mile or two very little grass, after which it becomes a barren plain of gravel. The ruins of a sarai lie about 6 miles from San-tao-Kow, by the side of the road. In the $N$, parallel to the road, at a distance of about $5 \mathrm{I} / 2$ miles, a line of villages and trees is visible. They belong to the Yumen district, the boundary of which is formed by the river San-tao-Kow.

About io miles from the ruin we reached an elevation in the ground which came from the north, and crossed the road. The cultivated district of Yumen begins here. From the top the regular lines of a town wall can be distinguished on the horizon at : distance of many miles. The road intersects the small rise running $N$ of the town along a small valley and
leads into the town by a gate that faces N . The wall is about $3 \mathrm{I} / 2$ fathoms high without a moat or protected external area and, except for the gateway and the crenellated parapet, is built of unbaked bricks. At the four corners there are small projections crowned with minor clay pavilions and in the middle of the wall in each direction there are similar ones, also of negligible size. The main street runs from the N gate to the middle of the S wall. The actual square of the fortress is in a SSW-NNE direction. The space inside the wall is densely covered with small mud houses, with an occasional single house here and there. To the S an uneven unpopulated area.

The road was good to-day, but the snow was 0.3 m deep and it was hard work for the arbahs to get through the considerable snowdrifts that had formed in some places. The town population was apparently busy carting the snow on to the road in large baskets placed on arbahs. The name by which the town is designated in Russian maps does not correspond at all satisfactorily to the Chinese Yumen hsien. The district contains the following villages:

| Ehrdago, about 15 li SE-NW | 270 houses |
| :---: | :---: |
| Thence to the SE approx. parallel to the road SandogoYumen: |  |
| Kuandsjuangza | 33 houses |
| Liangzago | 34 |
| Nanjangsjyng | $3{ }^{1}$ |
| Tchuanpeitching | 40 |
| Hsia Tunkhunkho | 30 |
| Hsia Sikhunkho | 34 |
| Thence to the E: |  |
| Ja Wan | 37 |
| From the town about 50 li to the N : |  |
| Huantsa van | 70 |
| To the S in the mountains: |  |
| Tchangma (6o hou) | 60 |
| 30 li in length. |  |

From the town:
To the NE: Khuakheiza
(about ioo hou) .... 300 houses over Io,000
sheep, 500 oxen,
To the W: 400 horses.
Hsi ta tschy ........... 43 houses
To the E:
Tschung tschy ........... 6o "
To the SE on the road to Suchow:
Tchi tchinsia ........... 36 "
Thence to the SSE:
Tchi tchin pu (40 li .. 340 "
in circumference) and . yearly
Shangtshyting in the SE . over 10,000 tons ofgrain
Further along the road:
Tchitchinhu ............. 10 - 12 houses
mil. post, mapoza, 2 sarais.
Thence 3 li to the NE:
Joutchyenza ............. I7 "
Further along the road:
Hoshaogo ................ 4 "
mapoza, 2 sar.
Thence so li to the N :
Shenma tcheng ........ 4 "
Further along the road: Khuikhuipu

17 "

The town contains 220 houses and there are 3 sarais inside the town wall and 2 outside it. There are $4^{6}$ shops, 3 of which are rather large, 1 with a yearly turnover of $\mathbf{2 0 , 0 0 0}$ and 2 of 10,000 lan each. Russian cloth is brought in small quantities from the west by Sarts and is sold to the local Chinese merchants. Wool is bought up in Changma, where there are said to be considerable flocks of sheep, but above all from Mongols, and is sent via Khua Kheiza to Chinta and thence to Bautu and Kweihwa ting, but the annual quantity probably does not exceed $10-15,000$ din. The stock of cattle is inconsiderable. 1 -2 oxen and I horse can be calculated per household. The flocks of sheep are quite small, excepting at Changma. In Khua Kheiza there are $400-500$ camels. A caravan route for camels runs thence to Uliasutai and another over Chinta to Bautu. The latter is said to be used for carrying wool from Ansi and Tun-huang. Another road (grass and plenty of water) connects Suchow with Tun-huang over Tchangma.

About $\mathbf{2 , 2 4 0}$ tan of grain are supposed to be paid in taxes for the tilled area in the district. The living conditions of the people are said to leave much to be desired. The houses are small and poor. The fields are hidden under the snow. Millet, wheat, tchumiza, peas, tchinkho, barley, oil plants and a little opium are grown. The yield is $8-9$ fold. Grain does not appear to be sold to other places, at all events not in any quantity worth mentioning, nor does other local produce. Mineral wealth is said to exist in the mountains near Tchitinghu in the form of naphtha, coal and gold. The naphtha is collected in small quantities with scoops from four shallow depressions in the ground. Coal is mined or collected on the surface in very small quantities. Gold, which is supposed to exist, is not exploited at all. A rumour has spread recently that a German has obtained a concession for working the naphtha resources. The population is entirely Chinese. There are no Dungans here, nor in Pulungchi or San-tao-Kow. - Snow falls between the 1 th and mst Chinese months; it reaches a depth of $1 / 2$ arshin, but melts several times as a rule. Rain is rare, but falls in the 5 th and 6 th Chinese months. Severe easterly burans are common during winter and spring.

The deep snow forced me to give the tired arbah horses a day's rest in the hope that some other arbah might during the day break the trail on which, according to the man-

November Chih-chin darin's statement, 3 carts had recently taken 24 hours to make their way through the deep village. snow. However, my hopes were frustrated, for the road proved to be snowed up and the surface was frozen hard. The next stage was said to be 110 li , which seemed a pretty stiff proposition, in view of the state of the arbahs and the snowdrifts.

I called my men at 3 a.m. and at 5 o'clock we started. The road led out of the other, southern gate of the town and after proceeding ENE and E for a short time, it took an ESE course which it maintained during the whole journey. The weather was clear and calm. The first rays of the sun were just appearing above the mountains as we rode out under the low arch of the gateway. The mountains in the $S$ and the surface of the snow-laden plain were dazzling in their whiteness. $S$ of the town the country was unpopulated and apparently uncultivated, with long undulations and slight mounds. Beyond, at a distance of $15-20$
miles, a mountain ridge ran eastward. Far in the E another ridge was visible, running northward. These ridges did not seem to be connected.

The road traverses uneven country, tilled and with a few isolated farms. 4 miles from the town we passed the ruined wall of an old fortification on the right. The rough remains of a wall, built in the form of a rectangle with corner turrets, reminded me of those I saw W of Ansi. They were more massive than those usually built by the Chinese nowadays and appeared to be very old. Immediately after, we crossed a river, 2 m wide, running south. The bridge was good. A mile further there was another river bed, Kunchang ho, coming from the mountains in the $S$. It was considerably larger than the last, but only contained a little water covered with ice. Twice a year in the 9 -roth and $2 n d$ Chinese months the water is said to be so high for a couple of weeks that it reaches a horse's belly and impedes traffic. A level, barren plain of gravel begins on the opposite bank. The depth of the snow was about 0.3 m . About 5 miles from the beginning of the plain we passed a small ruined sarai and about 7 miles further on we reached Koutientan, a clay building intended to be a miao or merely a "joutanza», ie. "half-way station». Two old and rather infirm soldiers lived there in a completely dark hut and seemed to know no more than any of the others, what their duties and service comprised.

The ground, which had been rising slightly since the dry river bed, now began to drop gradually. About 12 miles from there lay the goal of our journey, the village of Chih-chinhsia (Chin chin $=$ pure gold), with $40-50$ houses and 4 sarais, as many shops, a mapoza station and a military post of 10 men under the command of a pazung of the Chih-chin-pao tinpu in. Millet, tchumiza, peas, barley, wheat and some opium are grown. The average crop is $8-9$ fold. Snow from the 9 -roth Chinese month to the 2 nd; depth $\mathrm{I} / 2 \mathrm{arshin}$. Rain is rare; it occurs between the $4^{\text {th }}$ and 8 th Chinese months. Westerly buran are common in spring and winter.

Chih-chin-hsia lies not far from the foot of the mountains that had been visible in the E since the morning. In the S a smaller mountain rises near the village in a $\mathrm{N}-\mathrm{S}$ direction. A small river winds between them, flowing N. The village of Tenting wal with 40 houses is said to lie on its lower reaches. The Chinese calculate the distance today as go li, but the snow had increased it to rio li.

November 28th. Hui-hui-pao village.

We went on along a road, the width of an arbah, in a deep hollow in the soft ground between the mountain in the $S$ on the right and the river on the left. There were small fields on both sides at varying levels. The ground slopes towards the river, which we reached in about $12 / 3$ of a mile and crossed by a good bridge. On the left a group of mountains extended to the N . Isolated houses and trees were scattered along the river, some of the larger houses being surrounded by walls. The chain of mountains in the $S$ that had accompanied us since Tun-huang became visible again. A slope with a pronounced drop to the N runs out from it. About 5 miles from where we crossed the river we came to a group of deserted houses. The village of Chih-chin-pao with $34^{\circ}$ houses lies about $2 / 3$ of a mile further on, on the right, in the valley of the river. Higher up to the NE is the village of Tchang tchyting where, in a fairly large impanj, a garrison of one yin of soldiers is stationed
under the command of a tusy. Together they comprise 340 houses. The ground rises and becomes slightly hilly. We found ourselves among some insignificant mountains and hills, and we crossed two low ridges in succession, running $N-S$. An extensive grassy valley in a $\mathbf{W}$ - $\mathbf{E}$ direction spread out before us from the top of the second ridge. Immediately to the $S$ of us it appeared swampy and covered with ice.

At the foot of the hills we had passed lies the village of Chih-chin-hu with 1o-12 houses, about 1 I/3 of a mile from Chih-chin-pao. The houses were poor and small. A couple of Chinese had dismounted and were having a short rest. A crowd of idlers, who had been standing and staring at them, now transferred their attention to me, the newly arrived "djankuizan. My clothes, boots, cap, compass and watch had all to be fingered and examined. One old man was sitting in the sun knitting stockings in our northern way with 4 knitting needles.

For 2 I/2 miles there was luxuriant grass growing on hummocks. The road was the width of an arbah and was firm, but had cut deep into the ground. A group of trees and one or two houses were visible on the left at a distance of about $2 / 3$ of a mile. We saw the ruins of a sarai about 10 miles from Chih-chin-hu. The grass had grown thinner and the hummocks had given way to mounds and slight undulations. Gradually the grass ceased almost entirely.

We crossed 3 slight ridges in succession, running $S$, divided by small river beds containing water only in the spring and never in such quantity as to impede traffic. Immediately beyond the third ridge we reached the village of Hao-shao-Kow at the beginning of a fairly large open plain, enclosed by spurs of the mountains from the N . The ground here, covered with hummocks and mounds, bore grass again and in character it was like the plain we had recently crossed. On its E edge we crossed a larger river bed, also containing water only in spring or after rain. Its eastern bank was steep, a few fathoms in height. Thence we proceeded across constantly rising hilly ground with innumerable ascents and descents, which, though not particularly steep, were often fairly long and trying for heavily laden carts. We were among mountains of no great height coming from the N .

Darkness had fallen and there was no possibility of taking our bearings in this confusion. The journey in semi-darkness up and down along the ice-covered road seemed interminable. We began to feel the cold and longed for one of those dark, fusty dens that seemed quite comfortable after a long day's march in spite of the smells from the beds and the smoke from the brazier. The road had led downward again for some time. Finally we caught sight in the dark of the outlines of a row of tall trees and on the right the straight lines of some farm buildings. We crossed the small river Chin-ho, rising from springs not far to the S , skirted a slight hill and a fairly large impanj near it and immediately beyond reached the village of Hui-hui-pao. The distance covered during the day was about 30 miles. The Chinese call it inoli. The arbahs took 23 hours to come up with us. In Hui-hui-pao there were $3-4$ shops, 3 sarais and 42 houses. A detachment of 10 men was stationed in the impanj which was intended for a whole in. They were commanded by a tiendzung of the Chih-chin-pao in. Tchumiza, peas, tchinkho and wheat are grown and yield up to a 6 -fold crop. The stock of cattle amounts to 400 sheep, 20 oxen and $70-80$
horses. 5 li W of the village there is said to be a deserted village, Shematcheng, on the road, with springs of water, whence a small river flows to the village of Pai-yang-ho with 36 houses ( 3,000 sheep, 400 oxen and 200 horses), scarcely 30 li NW of Hui-hui-pao. About 30 li to the NE lies Hsiago with 20 houses ( $400-500$ sheep, 80 oxen and 40 horses)

From Hui-hui-pao the road runs over rising ground, crossing the SSW slope of the mountains in the N . On the left we had the mountains, on the right a valley. The ground consisted of gravel with very sparse vegetation in the form of creeping plants. Our faithful follower, the chain of mountains to the S , extended beyond the valley at a great distance. After 8 miles the road took us down the same slope at a slight angle towards the bottom of the valley. II $1 / 2$ miles from our starting point we found the ruins of a small impanj or sarai close to the road and a mile or two further on we reached Shuan-chien-tzu, a large, deserted impanj, at the bottom of the valley. Outside its wall there were 3 sarais with water obtained from 2 wells. Here there was a detachment of 5 men under the command of a tindsjy. A village called Tahunt-chien-zu with 12 houses ( 300 sheep, 20 oxen) is said to lie $10-15$ li further S . In the E a ridge-like eminence is visible, seemingly joining the mountains in the N with the chain in the S . The road approached it. We crossed a valley covered with gravel and stones with the dry bed of a river. There is said to be water there in spring, though in no great quantity. About $12 / 3$ of a mile from Shuan-chien-tzu a mild ascent begins along a barren slope of gravel with stones scattered over it. In the course of a couple of hours we climbed 5 ridge-like eminences, which seemed to form a continuous succession in a $N-S$ direction. In one place they were interrupted by a valley running in the same direction.

On reaching the fifth ridge we caught sight, at a distance of a few miles, of the roofs of the gate pagodas of Chia-yu-kuan beyond another long gravel hill. The road turned to the left and led us into a valley, from which we ascended the last gravel ridge. Now the whole little fortress of Chia-yu-kuan could be seen, crowned by three enormous gate pagodas of three storeys. Two clay walls extended to the SW and NE from it. We had reached the wall that prevents an entrance into the interior of China from the west. Another couple of miles and we passed through the great gate of Kouli. Outside it stood a huge block of stone with the inscription "ti i sjyn guan» (the first strict gate) in big letters carved in the stone. The wall that connects the mountains in the N and S for a length of about 20 miles is a low one with towers at some distance from each other, like tuntai towers. There is nothing to indicate that, even in the imagination of the Chinese, it could serve as an actual defence of the realm. However, the part of the wall that passes in front of the western fortress wall of Chia-yu-kuan, is built of baked bricks, 7 fathoms high, with two small corner bastions and another enormous one in which the gate is built. Through a low archway, 34 paces in length, you reach a passage, 3-4 fathoms wide, between the outer wall and the fortress itself, also 7 fathoms high, and after passing through another two archways, 10 and 34 paces long, you are inside the fortress. In reality it is nothing but a large gateway, for in I $1 / 2$ minutes you ride through the space, densely covered with clay huts, between the inward and outward gates, of which there are also two, and the

sarais, in which you are accomodated, lie in the suburb at the foot of the $E$ wall of the fortress. The Chinese say that a feeling of joy possesses travellers, when they enter Kouli by these 5 gates from the west, but that they shed bitter tears, if they are forced to travel the same route in the opposite direction.

We were housed in a comparatively good sarai, in the yard of which the NE bastion of the fortress, crowned with a clay tower with formidable embrasures for guns, rises towards the sky. Long before we had arrived, Hashim was standing and murmuring "Allah" in front of the pot, in which the pälaw was bubbling. A fire was made in the cubbyhole, rugs and blankets were unloaded from the horses, for the arbahs were not expected till the next day, the horses being tired after the journey from Chih-chin-hsia to Hui-hui-pao. The monotonous drawn-out notes of the evening tattoo resounded clearly from the small garrison of the fortress. These were followed by gunfire warning all honest folk to hasten home, and then I heard the Chinese Empire being locked up securely behind five massive iron gates, and there we all were safe and sound under lock and key.

Owing to the late arrival of the arbahs I was obliged to halt for a day. The fortress is November built on the $E$ slope of a terrace-shaped gravel hill, $11 / 2-2$ miles in width, intersected Chia-yu-k by many clefts in a NE direction. On the $E$ there is a large plain. Close to the fortress there are a few isolated houses with trees and in the far distance a dark line that is pointed out as the Suchow oasis. Chia-yu-kuan is supposed to have been built in the time of the Emperor Ming 400-500 years ago. The fortress walls are well built and kept in good repair, but apart from them and their graceful pagodas there is not much to see. There are a couple of old temples of the same date as the town just outside the wall. One of them, erected in honour of the god of war (Kuan shyn ti Chin), stands next to the E wall.


## CHIA-YU-KUAN

Chia-yu-kuan is built on the E edge of a terrace-shaped gravel hill, a mile or two wide, intersected by several clefts(thelargest of which is indicated) in a NE and ENE direction. A couple of small hills, slightly commanding the terrace, lie due W of the fortress at a distance of $2 / 3-1$ mile. A large plain extends in the E , intersected close to the fortress by several branches of a small river. It penetrates in the form of a wedge, about $2 / 3$ of a mile in width, between the hill, on which the fortress stands, and a similar one to the $S$. There are a few single houses and some trees along the branches of the river. The terrace-shaped hill is separated from hills further W by a gully, a mile or two in width, running in a $\mathrm{S}-\mathrm{N}$ direction. - The fortress is surrounded by a wall, 7 fathoms high, with a crenellated parapet. This, the gateway, in which the inner gate is enclosed, and the archway of the outer gate are of
baked bricks. Gates W and E. Above the gate projections there are towered pagodas of wood, on the corner projections clay towers, 2 fathoms high, with 4 gun embrasures each facing the plain and the ramparts. The space inside the wall is densely populated. A yamen in the middle of the N half. The Great Chinese Wall encloses the fortress on the $W$ at a distance of $3-4$ fathoms. This part of the wall is of baked bricks, 7 fathoms high, with a massive projection, 34 yds deep, into which the gate is built without any external protection, and two smaller corner projections, crowned by clay pagodas, without gun embrasures. The ramparts behind the crenellated parapet of the wall are 2 fathoms in width and connected by a bridge of boards with the ramparts of the fortress. The outer archway of the fortress is 10 , the gate projection in the wall 22 and the inner gateway 34 paces deep. A neglected fosse passes in front of the latter part of the outer wall. The walls are in excellent condition. From the corner projection of the outer wall a lower, neglected clay wall without any ramparts runs round the fortress and the suburb in the E. The Great Chinese Wall starts from it, a couple of fathoms in height, neglected, without any parapet or ramparts. - Drawn by the author.

It contains enormous images with terrible faces and a great many interesting old mural paintings, representing the god's 20 brothers-in-arms and various warlike scenes that appear to have occurred outside a large stone gateway - presumably that of Chia-yu-kuan. The walls of the temple are covered with wooden tablets and bright bits of cloth bearing ar-
tistically executed inscriptions, probably still more elegantly worded, the offerings of passing mandarins and merchants.

The administration of the place is in the hands of a mandarin subordinated to the Tsouguan at Suchow. He is also the western gatekeeper of the Empire and has to keep a record of everyone who passes his gateway. Settlers, large numbers of whom travel westward every year, have to pay i then per head for such registration or for obtaining a permit. A party of 500 Honans recently manifested their objection to this unjust imposition by giving the collector of this bloodmoney a sound thrashing and going on their way without paying anything. Owing to this incident the Taotai in Suchow had the tax reduced to $4^{0}$ thor.

The defence of the gates is entrusted to a juti, directly subordinated to the Djentai at Suchow. He has 8 officers and 51 men under him, representing, on paper, a in of 120 men. The detachment has the same militia organisation as at Ansi and the pay is the same. As at Ansi, training is only done during the and and 8th Chinese months. No target shooting is ever done, only firing with blank cartridges. The arms consist of about a hundred rifles with wicks, 2 old copper cannon, 17 taifurs and 20 swords.

There are the following villages in the district: NW of the fortress Huang-tsao in with 34 houses, 180 sheep and 60 oxen, producing 700 tan of grain annually; NE Ti uenpa with 20 houses, 1,000 sheep, 40 oxen and 30 horses and 70 tan of grain per year; $\mathrm{NE}_{4} 0$ li from the town Jeman ven with 300 houses, 4,000 sheep, 500 oxen, 400 horses and $6,000 \tan$ of grain; E Luotchyengo with 7 houses and SE Nanyengo with 40 houses, 2,000 sheep, 400 oxen, 140 horses and roo tan of grain per year.

Immediately to the E of Chia-yu-kuan the road took us down from the terrace-shaped hill, on which the town is built, past a few single houses with some scattered trees. We crossed 4 or 5 small rivers flowing in a NE and ENE direction at intervals of a few minutes, apparently branches of the same river that comes from the south. The water was as clear as crystal. We passed across the last river a mile or two from the fortress. Here practically all vegetation ceased. The plain was level and very stony. Creeping plants or small grassy hummocks only appeared here and there. The tuntai towers along the road were far more numerous than before outside the wall. All of them were enclosed by a low wall, at the foot of which stood 5 less brightly painted towers and a mud hut, adorned with red suns. The men in charge must have developed a passion for building clay walls, towers and huts, to waste so much of the people's time and labour in this way. The distance between them seems to have depended here, too, on the caprice of the builders, for I counted 28, 19, 24, 28 and 21 I/2 minutes between 6 different tuntai towers.

7 miles from where we crossed the last river we reached the village of Jyen jour tsäi, a succession of scattered houses and trees creeping along both sides of a dry ariq or branch of a river in a SW -NE direction. In the N and SE we could now clearly see the edge of a wood that indicated the boundary of the Suchow oasis. On the other hand both the Kheishan mountains in the N and Tsinlianshan in the S had disappeared from sight. At high water the river is said to obstruct traffic, though for not more than $2-3$ days.

This happens most frequently in July, when the crops have been gathered and the water is not distributed through the arias. A mile from the village there is a stone marking the boundary between Chia-yu-kuan and Suchow. $22 / 3$ miles further on there are a few houses known as Ting-chia-pa, among which another dry water channel winds its way. After another $3 \mathrm{I} / 2-4$ miles we reached the limit of the Suchow oasis which in this place takes the form of a narrow strip of scattered trees coming from the north, with here and there an isolated house and its fields. The road curves round the point of the tilled area. On the right there was still a strip of the same barren plain, intersected by many branches of the river Pei-ta-ho, flowing from the south. The main group of the oasis lies on the other side of it. The long brownish grey wall of Suchow was visible on its edge. We crossed 7 arms of the same river in a pronounced easterly direction in the course of $12 / 3$ of a mile. The main arm is 2 fathoms wide with a firm bottom of gravel and a depth of $0.25-0.3 \mathrm{~m}$. The boundary of the oasis runs in a SW - NE direction here. We rode past the ruins of a temple destroyed during the Dungan revolt. On the right a couple of miserable huts, along the road a few trees; it all looked poverty-stricken. We reached the N gate of the town $1 \mathrm{I} / 3$ of a mile from the boundary of the oasis. A yamen and a small group of houses with some shops, among which an arid or an arm of the river flowed, lie close to it. The distance covered today was $18-\mathrm{I} 8 \mathrm{I} / 2 \mathrm{miles}$. The Chinese estimate it at 70 li .

The whole distance from Ansi must be considered a good road. Where the ground seemed marshy, it is said not to impede traffic even in spring. The rivers, with the exception of one or two, do not present any obstacle either. In some places the road is no wider than the axle of an arbah, but for the greater part it is any width you like. Now and then the ground is rather stony and in crossing spurs of the mountains it is trying for heavily laden carts.

The town, surrounded by walls of $7-8$ fathoms in height, is tremendously impressive, rising from the almost bare bank of the river Pei-ta-ho in front of it. In a $\mathrm{N}-\mathrm{S}$ direction it extends for scarcely $2 / 3$ of a mile, in a $\mathrm{W}-\mathrm{E}$ direction for quite a mile and is continued by a slightly lower wall. A perfectly new three-storeyed »kulo» tower, painted yellow, green and red, under which the main streets cross, stands in the middle of the town. In the NW corner there is a group of temples. The principal one is called eTa chung miaow, taking its name from an unusually large bell. It rises in several terraces high above the level of the wall and looks very ornamental. In a smaller and less pretentious one the traditional wings on either side of the front courtyard are occupied by a number (quite a couple of hundred) of clay figures, painted in bright colours and about 1 m in height, representing scenes from the 12 hells of the Chinese. The 12 gods of hell, larger than lifesize, sit along the walls in 12 larger niches, each with 2 heiduks with terrifying faces by their sides. There are white-bearded ancients, who sit watching with the mildest of expressions the horrors being perpetrated at their feet, and red-bearded giants, apparently burning to leap down from their niches, consumed with desire to torture some poor sinner to death with their own hands. Horrible scenes are depicted on the floor, everything being


SUCHOW.
Suchow. Wall 7-8 fathoms high of baked bricks with a crenellated parapet and many wall projections, of which only those protecting the gates are of any size. No outer protected space. Fosse practically filled up. Small towers only on the E corner projections. Outer gate 12 yds , gate projection in depth 20 yds and inner gate 40 yds. Small groups of houses in the N and S near the gates; in the E a fairly large suburb surrounded by a neglected wall of clay or unbaked bricks, $3^{1 / 2-4}$ fathoms high. The space inside the wall fairly regularly intersected by streets. The westernmost part is partly uninhabited, partly occupied by large temple buildings. The yamens of the Djentai and Taotai are in the SE corner, the Tsouguan's in the centre of the N part of the town. - The land in the W, S and SSE consists of tilled fields at various levels, intersected by a great many small ariqs and strewn with thin trees and scattered houses. The houses are most numerous in the W and the ground is slightly higher, in the N it is practically entirely open. The bed of the Pei-ta-ho, covered with gravel and $2 / 3$ of a mile wide, lies there and the ground slopes towards it almost imperceptibly. $N$ of the river bed it rises slightly and forms a steep incline in some places. In the $\mathbf{E}$ and $\mathbf{S E}$ the ground is also very open and low, in the $\mathbf{S}$ it rises very slightly. A ravinelike incline, up to 2 fathoms in height, runs close to the fortress in the $\mathrm{W}, \mathrm{S}$ and E . The roads in the W and partly in the E are deeply sunken in the ground. - Drawn by the author.
reproduced with the crudest realism. You see intestines being pulled out with long tongs, whole bodies being flayed, skulls being sawn asunder, eyes being gouged out or being pecked out by a cock, women being hanged by their breasts, tongues being cut off, people being broken on the wheel, or crushed so that gobbets of flesh and streams of blood are pressed from between the grindstones, while a pair of feet in finely embroidered women's shoes protrude from the hollows in the middle. Such horrors should surely suffice to rid the inhabitants of Suchow of any desire to sin, and yet I am convinced that a couple of small copper coins placed in the opposite scale would make them forget their most sacred duties.

The Roman-Catholic missionary station is close to the temples in a modest little clay building. A young missionary, Jos. Essens, a Dutchman by birth, has been at its head for scarcely a year. Tchyng, a Chinaman from Lianchow, acts as his assistant. It gave me great pleasure to meet a European again after three months of solitude. He was a good horseman and shot and seemed a lively young man in spite of the serious calling he had embraced with apparent enthusiasm. My thanks are due to him for much information and good advice.

The fairly large space in front of the missionary station has not been built over since the destruction caused by the Dungan revolt. The Taotai's yamen is said to have stood there formerly. Now both it and the yamen of the Djentai are situated quite close to each other in a corner of the town diagonally opposite. Nearer the centre of the town two columnlike slender towers of clay rise high above the one-storeyed houses.

Suchow is the capital of a Taotai district that embraces the districts of Ansi, Suchow tchou and Chinta tchoutung. Ansi has the towns of Tun-huang and Yumen-hsien shen as subordinate districts, Suchow includes Gaotai and Chinta includes Memotin (?). The lown lies halfway between Ili and Peiping and is of some importance for transit trade between Kouli and Kouwei. As at Hami, a stay is usually made at Suchow either before or after the exhausting journey across the desert. Merchants and arbah caravans with goods provide themselves here with anything they may require; mandarins make a longer stay in order to breathe the Kouli air as long as possible (when travelling eastward) or again to enjoy the first proper town in Kouli, frequently after an absence of many years. In either direction the distance is calculated as so many times 18 days. A courier to the Bogdykhan, however, is expected to cover the whole distance in twice 18 days. There are still the same couriers tu-day as seven hundred years ago, when they hurried night and day - often with their lives at stake - along the strategic routes of Jenghiz Khan drawn across unbroken ground by stationing herds of horses, guarded by a few Mongols, at equal distances from each other in the main directions. Just as in the distant legendary days of that powerful prince his courier rushed on at a wild gallop from one station to another, the messenger of the Dzian Dziun at Ili covers the long road from Qulja to Peiping at breakneck speed. The station is warned by the courier's bell, sounding far off in the desert, and when the rider arrives, its fastest horse is ready saddled. Only the strongest physique can stand the strain and the task is so exhausting that it is often the courier's last ride.

The arrival of a high mandarin is celebrated by dinners given in his honour and returned by him, theatrical performances etc. To the local mandarin and especially to the population these visits of mandarins are a real burden. Their servants, animals and carts are maintained by the district, however long they may elect to stay in a place. When news comes of the approach of a mandarin, all the available arbahs and horses in the town at that time are stopped by order of the mandarin of the district. Utterly regardless of the loss suffered through such inactivity by the people, who usually earn just sufficient under ordinary circumstances to maintain themselves and their beasts, they are forced to keep themselves at the disposal of the mandarin for several days free of charge. It can be
) 430 (
imagined what it cost, when a year ago the old and new Dzian Dziuns of Ili stayed here, one for about a month, the other almost two months. To give an idea of the retinue that accompanies such a visit, I can mention that Ma , who gained greater renown in Qulja through his tea trading than his military exploits, had 120 riding horses, gifts from the Kalmuks and Kirghiz in the valleys of Ili and Tekes.

There is a customhouse in the town for collecting duty on Russian goods that are brought in large quantities by Sarts in Chinese Turkestan. Russian subjects who possess passports issued by the Khai guan tå (or in Urumchi by the Tung dzjuen dzin - or probably by a Russian consul) are exempted. The duty on goods coming from Kouli is usually paid at one of the larger customhouses passed earlier on the route and only the documents are registered here, for which, too, a special fee is charged. The rates of duty are said to be as follows:

## On Russian goods:

Sateen per piece $\qquad$
3 tch.
Ord. print "
Other goods are calculated
according to total weight
and are liable per $\tan$ to.. 8 tch.
Swedish cloth 4 "

## On goods from Kouli:

On goods from Kouli:
I class silk per tan $\ldots \ldots$. Io lan
II " cotton cloth, tea, su-
gar etc. ................. 2 lan 5 tch.
III class paper, thread, rope,
harness, pepper, fruit etc. .. 8 tch. 2 " 6 fen

The duty levied on Russian goods annually is said to amount to about $\mathrm{I}, 500 \mathrm{lan}$ in silver. All duty is levied in silver. This duty is called »shui tchy". The late Mr Splingart, a Belgian in the Chinese service who was well known to European explorers in the interior of China, was for many years in charge of the customhouse at Suchow. His salary was 12,000 or 16,000 lan, whereas the whole revenue from duty is said to have amounted to not more than 3,000-4,000 lan.

I saw no Russian goods other than cloth. This appears to have a good sale, especially the so-called "Swedish cloth». According to what Chinese merchants told me, Russian goods are sold annually in Suchow, Chinta and the neighbourhood to the value of $70-80,000$ lan. Japanese goods are represented by print, bjas, tablecloths and various small articles. According to the same source Japanese goods are sold annually to the value of $70-80,000$ lan. Altogether Russian goods pass through Suchow yearly for over 25,000 lan. The value of Kouli goods imported annually into Suchow, Ansi and Tun-huang is said to a mount to about 240,000 lan. I, 350,000 lan in silver are said to be sent annually to Urumchi via Suchow, representing the contribution of the interior provinces. An arbah carries $7-8,000$ lan of silver. - The value of the goods despatched by wheeled traffic to Sinkiang via Suchow is said not to exceed 400,000 lan yearly.

The number of shops in the town reaches the respectable figure of 367 , besides which there are 92 in the suburbs, but this includes the huts of the smallest craftsmen. Only 13 or 14 businesses have an annual turnover above 10,000 lan. Two banks have branches here. There are 4 sarais in the town; they are considered to be worse than those
in the E suburb, where there are 7 . - In addition to ordinary crafts there are several places in the town where a cheap stone, something between jade and marble, is made into bracelets, cups, tall straight goblets and other objects of very simple shape. The number of pawnshops is very large, as in all Chinese towns. For 川large» loans is \% a month is charged, on small ones as much as i \% a day. Anything can be pawned. Cases are known of men pawning their wives. If the wife is not redeemed at the appointed time, she is sold to the first buyer who applies and her former marriage is considered annulled.

The local growing of grain is sufficient to satisfy the local demand, including passing arbahs and caravans. No grain appears to be exported. Only wool, a little rhubarb root from the mountains, a small quantity of worked stone and a little gold are exported to the east. On exported wool there is a tax of I lan per 100 djin . - Minerals are represented by coal and gold. Coal is present in the Ven sha You, Pin-Kou Hsiao, Ta Hunkou and Lutsoukou gorges SW of the town. There are 5 shafts for mining it and it is sold in the town. Gold is washed at a place called Hung-shui-pa, S of Tinfusy at the outflow of the Pei-ta-ho from the mountains, about 4 days' journey from the town of Suchow. A tax of I then (in gold?) is paid for each workman, which yields about 7 -Boo lan a year. 500-600, at times up to 1,000 workmen are said to be employed there during the summer. They usually work under the supervision of a contractor who keeps an eagle eye upon them and chains them to each other at night.

With regard to the population of the town I obtained such contradictory information as $4-5,000$ and 40,000 , adults and children. In order to form an idea I got my men to count the houses, the result being about 1,000 houses, excluding the official quarters of the mandaring, churches and other public buildings. In the E suburb there are ${ }_{1} 6_{4}$, in the N about 50 and in the S 10-I 5 houses. If we reckon 3 "tia" or families to a house and 3 adults per family, the population should amount to about 10,000 .

In comparison with the districts I had already visited, especially in Chinese Turkestan, the water supply in this district appeared to be fairly abundant. However, the fact that most of the quarrels and fights, sometimes ending in murder, arise out of disputes regarding the distribution of the water, indicates that there is no superabundance of it. The division of the tilled land into small areas and taxation are based on the distribution of the water. It is conducted from the river in 6 large canals or arms called "pan. These "pan, from which the water is distributed to the various fields, constitute small independent units both in an administrative sense and in regard to taxation. A »lungguan» from among the local population is appointed annually by the mandarin and it is his duty to supervise the correct distribution of the water and to levy the taxes on fixed dates. He does not collect them himself, the population having to deliver them direct to the grain stores in the town. If the taxes are not forthcoming or disorders occur in connection with the distribution of the water, it is the mlungguan" who, in accordance with the Chinese idea that an official is personally responsible for the maintenance of order in his district, receives a painful reminder - on his legs or the palms of his hands - of the fact that a position of power
has its seamy side. These positions are consequently not sought after and it often happens that a wealthy lungguan buys a substitute for a certain sum of money - a transaction that is recognised by the mandarin. In distributing the water a peg or a candle is used as a measure. In accordance with the amount of tax payable, landowners are entitled to water according to the time it takes one or more inches to burn. The taxpayer can make various combinations, concentrate all his water rights in a certain area and so on. In case of sale he can make a certain area liable to heavier taxes than before, thus releasing his remaining land partly or entirely from tax. His rights to the water are reduced in proportion to the taxes. The total taxes for the district are said to amount to $5,876 \tan$ (according to Essens 9,800 tan). They are paid in tchinkho or wheat. The 6 "paw of the district are as follows:

## Direction from the town:

Annual crop of grain rield


In the village of Malachien-tzu of the Thurpa lungguan district there are 74 Tangut families with about 1,000 oxen, $3-400$ horses and 4,000 sheep. Otherwise the stock of cattle is small. It may be calculated at $2-3$ horses, $4-6$ oxen and a few sheep per household. A flock of sheep numbering several hundred is a rarity. There is said to be no large pasturage, but the owners of large flocks let them graze under the care of Tanguts in the mountain gorges to the $S$. - Wheat, peas, millet or tchumiza, oil plants, rice in the east and a little opium are grown. The yield is a good one and can probably be estimated at $9-10$ fold with an average crop. No shortage of water is experienced except at times in the N . There are 4 distilleries and 7 oilmills, but only for local requirements and for barter trade with the Mongols.

The population is Chinese, mostly immigrated from different places in the interior of China. Among io inhabitants there is scarcely one original inhabitant of Kan Su or Suchow. In Tun-huang there are quite a number of Dungans, but they only constitute a small fraction of the Chinese in the district. Their number is said to be considerably smaller now than before the revolt. In the mountains to the $S$ there are Tanguts and occasionally you meet some of them in the streets of the town in their peculiar, picturesque dress, the women's dress in particular attracting attention. They are not included in the tchou district of Suchow, but have to supply the Djentai with a few horses every year.

Some days have passed almost imperceptibly in hard work. Many small matters in December 8. regard to collecting information and other things have taken up a great deal of time. To- Suchow. morrow I start for Chinta. Although I feel there are still some things that I have not been
able to complete, I think I have devoted enough time to a place like Suchow. I had intended making an excursion into the mountains in the S in order to study the Tanguts and make some ethnographical collections among them, but the difficulty of hiring pack-horses here forced me to abandon the idea.

Life in Suchow has been like life in a military camp. When I arrived, almost all the sarais were full of ludziun soldiers recruited for IIi. Trumpets and drums, often producing the most ear-splitting sounds and played by untrained musicians could be heard all day long. If you went out-of-doors, you saw nothing but soldiers, clad in light blue, marching in slow time with long strides. They often sang in chorus the better to keep in step. The officer or under-officer would sing a verse by himself in a monotone and all the men would join in the chorus, stretching their legs as far as they could in time to the slow song. If you peeped into the yard of a sarai, you caught sight of another platoon engaged in gymnastics or other exercises. All the exercises were superintended by N.C.O.'s or officers of the lowest rank from the ludziun troops at Chihli. They all gave the impression of knowing their job, gave orders, formed up and marched with great self-possession and very well as far as one could see. No senior officers were visible. There are said to be 3 ins, 2 matuis and I påotui here recruited by order of Tchang Dian Dziun for li. All the men were recruited from Northern Kan Su and had been in Suchow for some time, owing, it is said, to snow obstructing the road further west. The true reason, however, probably lies in desertions. Many young men had decided to abscond, but were caught at Chinta and are now in irons. These attempts at deserting are, no doubt, connected with the rumour that had spread among the men that they were being sent to li to fight in a war with Russia, which evidently upset these young warriors. Of all those with whom my interpreter discussed this subject, there was only one who expressed satisfaction at going to war with the prospect of promotion and other benefits. A martial spirit has evidently not yet taken possession of the male population of Kan Cu. To judge by outward appearances, exercises and other performances, it seems to exist, however, among the smart ludziun soldiers at Chihli.

Among other signs of reform it should be mentioned that European goods and factories are becoming more and more popular among the inhabitants. Japanese goods are said to have increased considerably in quantity since the war. At Lanchow, it is said, there is an obvious determination to improve the industry of the country without the help of Europeans. Germans, who had run a cloth factory there for many years, have had to surrender the management to Chinese. For a few months this experiment succeeded, but now the factory is at a standstill. No more concessions are granted to Europeans. At present there are said to be two Belgians in Lanchow, a chemist and some kind of foreman with a certain amount of education. They are there to help the Chinese authorities to establish new enterprises. By order of the governor, maps are said to have been made in all the districts of the province. The Taotai in Lanchow is said to be the heart and soul of this Europeanising movement. However, there seem to be a good many difficulties to be overcome. In building the railway to Sian disorders seem to have broken out among the inhabitants owing to the burdens this imposed upon them. The building was stopped by
order of the Bogdykhan. The iron bridge that had been ordered from Germany for Lanchow is also supposed to have been stopped by orders from Peiping at the end station on the railway, 12 days' journey $E$ of Sian. The reason is said to be that the Taotai was not willing to make sufficient sacrifices to enlist the interest of the mandarins in Peiping.

The only official of Suchow I saw was the Djentai. My calls at io a.m. were obviously too early for the Taotai and Tsouguan, for I was not received. My quarters in the sarai were so cramped that I did not trouble to receive any of the mandarins, when they returned my call. The Djentai, a stout man of 63 with a big beard ending in two narrow wisps hanging down to his stomach, was for a long time at the Chinese embassies in St. Petersburg and Paris. I got him to tell me about the court balls. A roguish look came into his small eyes, as he tried to explain how the dance proceeded, slightly wagging his plump body and waving either hand rhythmically in illustration. He told me that all the troops in his district were to be converted into ludziun troops. Little importance could be attached to this information, however, for his statement that exercises were already being carried out on the same lines as in the ludziun, is not in accordance with the facts. His admiration for the Japanese did not seem to be wholehearted. He thought they had been lucky. Though he acknowledged their great merits, he did not consider them strong enough to start another war; on the contrary they had been greatly exhausted by the last campaign. He had never admired the Russian army. Too many different elements served in it without any real cohesion. Morally the officers were not equal to their tasks, he said, and his mpuhaow was pronounced with anything but an appreciative smile.

Suchow is connected by an arbah road over Liang-shu-kou with Chinta, a distance of about 90 li. Another arbah road goes over Ning shui, about roo li. Arbah roads lead to the mountains in the S, to the Wen shu go gorge in the SW and 2 roads to Tinfusy in the SSE. Besides the main route another road is said to go further south, nearer the mountains, to Kanchow. On this stretch a line of villages and tilled fields is said to lie at the foot of the mountains, more or less close to them.

Packing our most indispensable luggage on to a so-called hsia tchö'r, we started off December 9 again this morning. The rest of the luggage leaves to-morrow and will await my arrival Ning shui from Chinta two stations from here, as I want to pay a short visit there in order to study village. traffic conditions. The driver of the arbah did not put in an appearance until 8.30 this morning instead of at dawn as I had ordered. In the heat of the moment I gave a thrashing to the wrong driver, an injustice that I tried to make good by giving the man i lan. The example frightened the culprit, however, and he did his utmost to make himself useful, probably hoping for similar generosity. There were, no doubt, many of the spectators who would have liked to earn a lan in the same simple way.

We had to take the road via Ning shui, because the driver of the arbah did not know the direct road. The road leads through the E gate of Tun-huang and just outside the town passes 3-4 large monuments of clay on the left, under which human bones, found in the plain, are collected. Further on there were 3 small temples connected by a wooden
bridge and behind them a mao shaded by trees. The road leads for about half-a-mile between two steep rises in the ground, a couple of fathoms in height. About $2 / 3$ of a mile from the town we crossed an arm of the river which takes a more easterly course N of the town and encloses it on the N and E . The grey walls of an impanj could be seen in the S at a distance of a mile or two. It was surrounded by a great many trees and an avenue led from it towards the town. It was built during the suppression of the Duncan revolt by the Chinese general Tsoả gung pao who had his camp there. Now the mobile troops of Suchow are quartered there.

The land now became quite flat and the road ran between trees, some in rows, others growing haphazard. The river, $11 / 2$ fathoms in breadth, wound on the left, and a yellow strip of ground ran in a direction parallel to ours a few miles off, probably marking the bed of the main arm of the river. On the right there was a row of houses and trees at a distance of $11 / 2-2$ miles. Far to the $S$ we could see the chain of the Nanshan mountains, though only faintly visible in the hazy atmosphere. After about $31 / 2$ miles the houses, which had been closely built on either side of the road, grew scarcer. About 5 miles from the town stood an inn Ehr-Shih-li ma fog, where some Chinese travellers were devouring "lapshan, so that you could hear them half-a-mile off. 2 miles further we came to a ruin, the first of a whole row of similar ones along the road. They, too, are said to be the result of the Dungan revolt. The largest were another two miles farther on and the ruins of a mao and a memorial of recent date were visible among them. They were called Santung shito tan. Here and there a hut was inhabited among them. Almost a mile further on, two arms of the river crossed the road. The broader one was about 7 fathoms wide and the current was swift. It was crossed by a good, but narrow bridge. The village of Ning shul lies on the right bank; it consists of 90 families, 32 shops and 5 sarais. To the N we saw the village of Hsiao dja tong djuang with an uncommon wall, built in a circle, and a good deal further off there were small mountains. A short bazaar street was succeeded by the village of Ning shui itself, enclosed by a dilapidated wall. A pazung of 5 or 6 men (instead of 15 ) of the China garrison and I officer and 13 matui of the troops of the Titai at Kanchow, constitute the military force of the place.

The neighbourhood is simply alive with pheasants. During the day I shot 7 fine cocks, one of them brought down with my Browning while mounted, and a bird of prey streaked with white. The road is good throughout the whole distance and the bridges are satisfactory, but narrow. Wood is available all along the road. The distance is io or at most II miles. Here the road divides. The main road goes on to Gaotai and Kanchow, while a branch road leads to Chinta. - At Ning shui there is snow from the 1 th to the end of the est Chinese month, about 3 vershoks in depth. Rain often occurs between the 3 rd and 9th months. Westerly buran are rare, 3-4 times a year.

From Ning shul the road proceeds eastward along the bazaar street and through the village. The latter is surrounded by a wall, the length of which is about 250 fathoms from $N$ to $S$ and 120 fathoms from $W$ to $E$ with 2 gates on the $W$ and $E$. To the $E$ of the wall we went along a small bazaar street for a few minutes. At the end of it we turned off from
the main road which leads to Kanchow, and took a NNE course. The neighbourhood is like the one we traversed yesterday just E of Suchow, tilled fields, many houses and trees planted along ariqs and roads and round the houses. In some places the road had cut a ravine-like hollow in the ground. We crossed several small ariqs. The houses are not large, but look well cared for.

4 miles from the village we came to the ruins of the large Chinese wall that had been severely damaged during the Dungan revolt, at the spot where it stopped on the right bank of the Ning shui-ho and started again on the left bank. This place is called Na myng" and Hsia-Kou-cheng. A small miao stands close to it. In a NW direction a long height, coming from the west, is visible on the left bank of the river at a considerable distance from it. The river winds in a single arm in a NNE direction. The houses and trees became scarce on our bank. On the opposite bank the fields ceased soon after. 4--5 miles further on lay a group of houses called Yuan-yung-che. They lay close to the western foot of a gravel hill that ran in a southerly direction here. Some kind of tuntai tower was placed on the hill close to the village and the S point of the hill was marked by the ruins of a smaller tower. About $2 / 3$ of a mile before, we had crossed a tributary of the Ning shui-ho. It turned north and flowed for a time along our road before joining the Ning shui-ho. The ground on the left of the road is marshy here for a width of scarcely $1 / 3$ of a mile. On the left bank insignificant hills of sand or gravel come down to the bank from the west. Further to the N the considerable hills and mountains that we noticed yesterday from the road were visible. In character they resemble a conglomeration of gravel mounds and small mountains that form a row and run in a curve from the W or SW to the SE. Almost due N of the village we noticed a gorge that provides an outflow for the Ning shui-ho, which is said to join the Pei-ta-ho there.

The cultivated area ended with the last houses of Yuan-yung-che. The road took us over slightly rising ground, thinly covered with gravel, towards the mountains. Soon we had low gravel hills on either side of the road and within 2 miles of the village we found ourselves in the mountains. These we crossed by a narrow gorge, or rather, a valley between small mountains of soft outline. After ascending the gorge for a few minutes the ground began to drop slowly and immediately afterwards we got on to an open slope with a slight descent to the ESE. On the W and S it was enclosed by the mountains we had just passed and in the N and E by other similar hills. We cut across the plain in a northerly direction, the ascent being almost imperceptible, and again began to descend along a similar gorge. also very short. The mountains were a conglomerate of gravel and sand, the wall of rock only protruded on a couple of slopes facing $N$. From the latter half of the second valley there was a wide view of the plain northward, though to-day it was very much limited by the hazy atmosphere. A mile or two further $\mathbf{N}$ there was another chain of hills in a $\mathbf{W}-E$ direction and a few miles further off the fields and trees of Chinta appeared like a green ribbon against the snow-covered plain. In the NE a long rise in the ground ran in a $\mathrm{N}-\mathrm{S}$ direction towards the mountains we had passed through and in the $W$ there was a valley going $N$ that looked like that of the Ning shui-ho. West of it there were hills and mountains again with soft outlines, the continuation of those we had left behind. We reached the hills
in a little less than 2 miles. The ground on their N side was a barren plain of gravel, falling quite impreceptibly to the north.

The oasis begins $21 / 2$ miles from the last hills, bounded in the $S$ by a large clay wall, crumbling in some places. In the NE there was a high tower, like a column in shape. For a couple of miles we passed some isolated houses, fields and single trees and after $2 / 3$ of a mile came to the S wall of the town of Chinta. The little town looks unusually attractive in its irregular form, breaking away to some extent from the dull symmetry of most Chinese towns. Its size is 500 paces from $N$ to $S$ and from $W$ to $E$. The $S$ gate is in the $S W$ corner of the wall. The SE corner is crowned by an old-fashioned tower of several storeys with slender columns and a graceful roof, under the eaves of which bells that tinkled in the wind were fastened. The streets, or rather, the lanes were crooked and short, often without sequence. The walls were built in semicircular lines which gave the whole construction an oddly imposing air. The government offices were small and cramped, but had an impressive, old-world atmosphere. Here and there some fine old trees with knotted trunks of huge proportions could be seen behind a mud wall. Everywhere there were small tinkling bells, the soft tones of which blended with a peculiar longdrawn whistling caused by whistles fastened to pigeons. I rode through the gateway with a feeling of contentment. The wintry day that had been beautiful at first, was spoilt by a strong west wind which turned into a regular storm N of the mountains. Although the temperature was not particularly low ( $-8^{\circ} \mathrm{R}$ in the morning), we all felt very cold. - During the journey I only saw 2 coveys of pheasants which I missed with two shots from my Browning. I shot a wild goose, however.

In the evening I received a call from the son of the local mandarin. He had lived in Germany and had learnt a little German which he murdered unmercifully. His studies in a military school in Peiping had been interrupted by bad health and in 2 or 3 years he was to take a civil examination in which his knowledge of European languages was to be a trump card. His health certainly seemed poor; he was tall, thin, with deep-set eyes and hollow cheeks. He had, however, recently made a pleasure trip of a few thousand miles and had visited Tun-huang, Turfan, Qarashahr, Lop Nor, Nia, Keriya, Khotan, Guma, Karghalik, Yarkand, Kashgar, Maral Bashi, Aqsu, Kucha, Urumchi, Kucheng and Hami, and had crossed the desert to Chinta. Thus during this little trip he had crossed the desert twice and had on various occasions cut across corners of it. It was not surprising that he complained of headaches. When he could not find the right word, he had an amusing habit of pressing his first finger against the tip of his nose, flattening it out considerably. This operation never failed; he always found a word, frequently not the right one, but pronounced it very precisely, though with facial contortions that indicated enormous effort and acute suffering. When I called on the mandarin to-day, I looked in on the young man. His small, dark, cold and damp room was full of books and maps, many of the kind you would expect to find in Europe in the hands of half-grown youths or big children, not of young men of over 20.

His father is a simple official who has achieved no other distinction at the age of 50 than a white glass button, but his late brother had been Chinese ambassador in St. Peters-


## CHINTA.

The wall of Chinta is about 5 fathoms high, including the parapet. Ramparts narrow. Wall projections quite insignificant. Only the gate facing $N$ is protected by a wall projection, $20-25 \mathrm{yds}$ deep. Outer archway if yds, inner one 17 yds deep. In the SE corner there is a small secret gate facing E. Fosse small - lacking in some places. Wall rather neglected. Only the archways of baked bricks. Above the gates and on the SE corner pagodas of wooden lattice-work. - The space inside the wall is densely populated and has winding, narrow streets. The Hsietai's yamen and possibly stores of arms in the centre of the $N$ half of the town. The Tinguan's yamen in the centre of the town. - The town lies in a level plain commanded on all sides by the walls of the fortress. The land is tilled and densely populated in the NNE, NE, E, SE and S. Ariqs, clay walls, various irregularities, houses and trees. In the NW, W and SW, however, there is an uninhabited open plain, about $11 / 3$ mile wide. A row of houses and sparse trees runs $E$ of it from $N$ to $S$. All the roads good and ariqs of slight depth. - Drawn by the author.
burg, Berlin and, if I am not mistaken, Paris. They were all called Tseng, Tseng Huang Tseng, one of them Tseng Je Z; I cannot recall how he wrote the names of the second
and third. It seemed immaterial to me and I did not pay much attention, when he tried to explain the difference. It must seem just as unimportant to the Chinese, when we try to make them remember our names.

As I was writing these lines, I was interrupted by another call from the same young man. He brought me a poem he had written in my honour - a curious form of politeness to a stranger. He turned out to be no less than 35 years of age, married and the father of a family, though his family lived at Honan. His elder brother was Chinese minister in Japan and the younger one is to occupy a high position in Peiping. His grandfather or great-grandfather had, he said, played the same part in China as Bismarck in Germany. And this man of 35 sits cramming in his cubbyhole, making himself ill, and hopes, at the age of 38 , to pass his official exam and embark on a career that is certainly thornier in China than in other countries. In its way it shows as much energy as the Chinaman who makes the journey on foot, practically penniless, from Honan to Urumchi or Ili in the hope of making a slightly better living.

In order to thank the Hsietai for a basket of charcoal that he sent me on my arrival yesterday and to which I had replied by sending him some pheasants, I called on the highest military mandarin of the place. I was received in a very old-fashioned yamen by a man of 65 or 70 , while a salute of 3 shots was fired and some musicians in a pavilion played some extraordinary Chinese music, as old-fashioned as the house, the ancient trees that shaded its small courtyard and the deaf old man, who came forward to meet me with a theatrical gait and a polite smile, robed in yellow embroidered silk lined with white fox-fur. Conversation was impossible. The man was so deaf that he could not hear anything, but he pretended that nothing was wrong and talked away to his heart's content. He told us that he was 45 years old. He claimed to have been an excellent archer formerly and had been through many wars, including the reconquest of the province under Tso gung bao. I am a little sorry now that I was economizing in photographic plates and did not take a portrait of the old man, for I have seldom seen such a finely formed old face.

The district is divided into 7 pa , conducted or flowing from a tributary of the Pei-ta-ho from the WNW or NW. According to the Chinese map the tilled area extends for about r8o li to the WNW of the town.

The following are nearest the town:

| Chintapa |  |  |  |  |  |  |  | ,800 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hukopa | 185 | " | " | " | " | " | " | 4,004 | " |
| Utungpa | 120 | " | " | " | " | " | " | 4,005 | " |
| Santangpa | 88 | " | " | " | " | " | " | 3,002 | " |
| Wang za tchuang tung pa | 188 | " | " | " | " | " | " | 5,700 | " |
| Wangza hsipa | 186 | , | " | " | " | " |  | 5,600 | " |
| Hsi wai lupa | 186 | " | " | " | " | " | " | 3,500 | " |

Much opium, wheat, millet, tchinkhö, tchumiza and small quantities of oil plants, cotton and mustard are grown. The crop on better soil is 8-10, on poorer soil 6-8 fold.

A tax is paid of 2 shyn or 1 tou in grain per tou of land according to the quality of
the land. The total amount of the tax is said to be 1,370 tan of grain (which indicates that the poorer land preponderates) and 29,000 sheaves (of 8 djin ) of unthreshed millet straw. The stock of cattle is said to be 2 pair of oxen, $2-3$ horses and $20-30$ sheep on the larger farms, I pair of oxen, 1 or no horse, a couple of donkeys and a few sheep on the smaller ones. Only 4 Chinese are said to possess camels and their number is not supposed to exceed $2-300$. According to another statement that I consider more trustworthy, there are about 2,000 camels in the district. - In the town it self there are 57 shops, 2 sarais; in the N suburb 39 shops and 3 larger saris. Only 2 or 3 shops are said to have a turnover of above 5,000 lan per year.

There is a great deal of caravan traffic over Chita to Gui khua then from this part of Northern Kan Lu and to Kami and other places in Sinkiang from Kouli. Roads, on which there is a good deal of traffic, lead to Uliasutai and Barkul. Two roads seem to go to Hame, the western, shorter one being used by Sarts, but the eastern one by Chinese. The latter, at any rate, is used by arbahs at times. The road to Barkul has two branches, one of which, too, should be passable for wheeled traffic, though it is not used for this purpose. According to the information I obtained (from the Djentai in Suchow, the Hsietai here and 2 old Chinese) the Chinese army did not use this road during the reconquest of Sinkiang after the Dungan revolt, but followed the main route over Hami. On the other hand, a military route used by the Chinese in the time of the Emperor Khan is said to have passed in this direction. It proved impossible to obtain any information regarding the routes to Gui khua then. The Chinese residents here only knew those going to Barkul and Kami and there were no leaders of caravans from other places available. Nor was I able to secure any information concerning the extent of the caravan traffic through this place. Wool purchased by foreign firms is despatched to the east with completed documents, so that it leaves no traces behind at the local miking" station. Tobacco, pepper and other goods are despatched to Uliasutai.

One of the arbah mules sickened at the moment we were getting into the saddle. As I December had no wish to see my things left halfway and it would take several hours to hire another Chita. animal, there was nothing for it but to sacrifice a day. I spent it in wandering about the vicinity of the town and taking a few photographs in a couple of old temples. My hopes of being able to shoot something were disappointed, and Lukanin and I returned chilled to the marrow after a fruitless ride of 3 or 4 hours.

I $1 / 2-2$ miles SE of the town stands a mao which was built, it is asserted, in the time of the Emperor Van li (about 300 years ago?). There are 3 memorials there with long Chinese inscriptions, but Sym made out that the oldest was dated the goth year of Kienlung and only referred to some repairs. A tall tower stands next to the temple and I was told that there was an older inscription at the top of it, in any case inaccessible, for there was no means of reaching the top of the tower. The temple is called Fo je mao and is said to have been built in honour of the three gods of "San-Ta-Shy". They are enthroned inside three buildings in the form of large gilded figures of Buddha, one riding a tiger or a lion, another a recumbent elephant and the third sitting cross-legged. In another building there


Interior of $V u$ lang man at China.
are 4 gigantic images, three of which are each crushing a crawling, miniature human being beneath their feet.

In the town, close to the south wall, there are two old - or rather, three -temples shut in by the surrounding houses. One is dedicated to the god Vul liang je, who sits enthroned, richly gilded (even his face), surrounded by Lui shynje, the god of thunder with a bird's beak, Ling Kuan de with his red beard and a couple of other gods of terrifying appearance. The other temple is called Tcheng Huang mao, but nobody could explain who Tcheng Huang was. I was only told that, if you were a mandarin in this world, you would become one in another world and so on, and I imagine that this fortunate arrangement is the work of Tcheng Huang and that he is worshipped in order to induce him to intervene in this manner, but I may have misunderstood my interpreter. The third temple is quite small, and lies at the end of a narrow passage between two houses. The antique door, decorated with the heads of large nails, framed in a very narrow gateway, looks attractive.

A little temple leaning against the northern town wall towers above it and overlooks the town and its surroundings. A broad stairway with shallow, easy steps leads up to the temple. Inside everything is shiny and bright owing to recent repairs that have deprived this attractive temple of all its old-world atmosphere. It goes by the name of Guan Shy Ti Tjyn. There is one more larger temple, but I was unable to see it, as the caretaker was absent.

In the evening my new German-speaking acquaintance paid me another visit. He had been so kind as to write out quite a hundred visiting cards for me in very large letters. They bore the legend "The learned Finn Ma-nu-ör-hei-mu». When a foreigner travels in the interior of China, he is accompanied by a document (besides his passport) which is carried by a "jain" or "tsei-rin» from the last district mandarin to the next. In the document
that had arrived in Chita from Suchow my new friend saw that my name had been written in a way that sounded ridiculous to a Chinaman's ears and this had induced him to write out my visiting cards with his own hand. "Ma" is written in many ways and has many entirely different meanings. The one used in my surname means horse and I had adopted it when I was called Ma-Da-Khan in Kashgar. In my passport from the Russian ambassador in Peiping "man is written with a sign that means jade, which the Chinese, who love valuables and riches, allow to pass, though it does not sound so Chinese in a name as man - horse. Finally there is another "man" which the Chinese use as a term of abuse, and this sign had been used for my name when the identification certificate was drawn up in Suchow. The indignation of the refined and effeminate Tseng can be imagined, on seeing this document by chance. He shuddered at the thought that, after being received by the Viceroy in Lanchow, I might figure in the local Chinese newspapers under this horrible name. He was quite different to-day from what he had been on his two former visits. We talked politics and that woke him up. He is a strong supporter of European reforms in China and vehemently attacked the old system without the slightest respect for princes or other great people in the Empire. He was convinced that in two or three years practically nothing would remain of the old system. Of the mandarins in the province of Sinkiang, for instance, not one would be left. Those who were not executed would be exiled and dismissed. It would have been hard to recognise the elegant Tseng, bowing at every other word, in the impassioned young man in the semidarkness of my room. His cheeks glowed, his eyes shone and with an elegant gesture he indicated each one that would, in his opinion, be executed. - He described the Dzian Dziun Tchang as a sly intriguer, who was, furthermore, old, had a badly chosen entourage, into which only flatterers could make their way, and was unable to perform what he promised the authorities in Peiping. His aim was to become Viceroy in Sinkiang with a Futai in Sinkiang and another in Sining which was to be included in his viceregal realm, but he would fall and be replaced by someone of real ability. The Japanese, he said, would never play a leading part in China. They were being used now as teachers, instructors and in other subordinate positions that had formerly often been occupied by Europeans, merely because they were cheaper. China should be run by the Chinese, but Chinese with a western education, that was his firm conviction. I was pleasantly surprised to find a man in remote little Chinta who was so well acquainted with conditions and discussed them so openly in a European manner. He was a wholly unexpected phenomenon to me, a son of that new China whose doings were being followed with wrapt attention by the powers of the Old World, particularly Russia. A bottomless abyss separates the type he represents from the educated Chinese whom I had met so far during my travels. We parted like old friends and arranged to meet in Peiping towards the end of the summer.

Chinta is connected by arbah roads with Sikhunsy about 70 li to the W, Ehrdiavan about 80 li to the N , Thutung about 30 li to the E and Momu about 200 li to the NE. The river Ch'i-ho flows through the NE and E of the district.

December 13th. Our journey to-day took us close by the temple with the tower, SE of the town. This Shuang-ching- was the only tower I saw in Chinta, in fact one might suppose that it was here to give tzu station. the name Chinta a "raison d'être». Chin means gold, golden; ta means tower; Chinta = the golden tower. It is, indeed, not of gold, nor even gilded, but at any rate it is a tower. Part of the ruined wall that bounds the oasis in the $S$, passes close to the temple. I was told that the whole oasis was once, or still is, entirely enclosed by a wall, but I could not ascertain what date it was. In general the Chinese here have no idea of the past history of the place. In reply to my questions the mandarin said that everything was put down in the books of the yamen, but that he had not wasted time in studying them. I was told that the tower had been built in the time of the Emperor Ming and that during the time of the Emperor Yntchin the district mandarin resided in the town of Vei-lu about 30 li to the NW. The ruins of a Tchantu town are said to exist there, but the local people have not found any ancient objects. Chinta was formerly called Wang za tchuang and a Tchantu wang was resident there.

The untilled area begins on the other side of the wall, dotted at first with many Chinese tombs. By a slow ascent the road took us in a SE direction towards the mountains which we had passed on the journey from Ning shui to Chinta. They have the same character here of a conglomeration of a large number of gravel hills. Here, however, the hills are of greater length and are like ridges. The highest point, a kind of small pass, lies 8 miles from the town. The chain of mountains runs westward approximately in a direction of $108^{\circ}$. In the E no range is distinguishable; there is a sort of collection of high-lying, flat, terracelike hills. During the ascent the road bisects a couple of small valleys. There are dry river beds at the bottom of two of them in a NW and NNE direction. The descent is imperceptible. For about a mile and a half we rode at practically the same level and then the ground began to fall very slightly. On the sand and gravel that had so far been entirely barren a kind of small creeping bush began to appear on the southern slope, growing on tiny hummocks at very great intervals. The gravel on the hills ceased about 6 miles from the highest point of the day and we entered a belt of sand, thickly strewn with large hummocks, on which the same bush-like plant grew, though rather larger in size. About a mile further on, sparse and low-growing reeds appeared and very soon we were on typical, slightly porous ground with large white deposits of salt. During the descent I was unable to discern any range of hills with a decided direction. The hills run into the ground to the S . It was only when we came to a slight, long, ridge-like eminence running southward on the left that the terrain acquired any mountainous characteristics.

The Shuang-ching-tzu sarai is really the first arbah station E of Suchow, from which it is 100 li distant. The distance from Chinta is about 18 miles. The road is good and the ground firm. A ruined impanj stands next to the sarai. There are 3 sarais, 2 wells with plenty of good water, i mapoza station and i pazung of 10 men of the Tcheni garrison. - Westerly burans are rare, but occur in the autumn and spring. Snow from the $10-1$ ith Chinese month to the 2nd, $2-3$ vershoks in depth. There is rain in the 4 th -8 th months. but seldom.

I made an excursion to-day to the village of Ma-chuang-tzu, about 40 li SE of Shuang- December $I_{4}$ ching-tzu. I was keen to see the Tanguts who inhabited it, though nobody could tell me, Ma-chuangif they were "Hsi Fan zy" or "Hei Tan zy". The road ran over level, grassy ground with tzu village. large deposits of salt. In $5-5 \mathrm{I} / 2$ miles we reached the first of the widely scattered houses that form the village of Ma-chuang-tzu. The inhabitants proved to be Hsi or Huang Fan zy. They call themselves „Sarö Yögurs» - the yellow Yögurs. Of the inhabitants I only saw 3 women, i man and a couple of children. The women, whom I propitiated by the gift of some mirrors, allowed themselves to be photographed after some hesitation and were fairly talkative at first, but as soon as I got out my pen and began to take notes, they changed as though by magic and became extremely reticent. The oldest one, a woman of about $5^{0}$, had a dignified appearance and a Roman nose, the other two had prominent cheekbones, small eyes, ugly, fleshy noses and altogether a coarse appearance without clearly marked features.

We encamped close to a small impanj-like ruin which the Chinese declare to be Kalmuk, next to a Yögur lama temple. None of the lamas were present, but that did not prevent the Chinese officer, who had escorted me from Shuang-ching-tzu, mounted on a donkey, from having my belongings carried into the cleanest of the houses that surrounded the temple. When the lamas returned, they accorded me rather a cool reception at first, but they soon grew hospitable and talkative, especially my host. There were 7 or 8 of them, each one living in a comfortable house of 2 or 3 rooms built and furnished in Chinese style. According to their own statement, they earn their livelihood by cattlefarming and chopping wood. The contributions made by the local people for the prayers they say are small. They bring up some boys to be lamas, distributing them among the quarters of the different lamas. Only the lamas are able to read and write, but they use the Tangut language for writing. I saw some papers written by the lamas at Gumbum which, however, they were unable to decipher. They explained that the Tangut lamas had two written languages, of which they only knew one. They did not know of a written Yögur language, nor could they tell me anything of their past history, princes, wars etc. It had been handed down from father to son that their people had come from the west over 1,000 years ago and that their town was called Shidsja hadsje (in Chinese Tchenfu tun) far in the west. Tchenfu tun was supposed to lie 45 days' journey to the west or south-west near high mountains and a river. They had had a temple with many caves on the mountains. The mountains surrounded Tchenfu tun. Another man told me that they had removed to this place during the time of the Emperor Kangsi, because cholera raged in their country. Part of the tribe had settled in the mountains, another in the plain. Those who had settled near Suchow had become quite Chinese. The others had retained their language. The small ruin near the temple was already in existence at that time and belonged to a tribe with tails called »Kuzyrkei».

Their village contained about 40 houses. About 80 li further $\mathbf{E}$ lies the village of Tung-hei-tzu, also with $40-50$ houses and a temple. It is inhabited by the Huang Fanzy. There are Huang Fanzy who speak the same language at a place called Yumashan, about 60 li S of Gaotai. The same people live further south at Bajakhtagh and in the country and mountains

S of Kanchow, but they speak a language similar to that of the Kalmuks. In Janga (Livenku in Chinese) in the mountains $S$ of Kanchow there is said to be a third temple and a Huang Fanzy wang. Their language is greatly reminiscent of the language of the Kirghiz. They say that they can make themselves understood by Kirghiz whom they meet at times in Suchow. There are no old songs or legends current among them.

The temple is small and poor. Large, crude paintings on the principal wall, brought from Sining, depict Shykshatoa enthroned in the middle with Tchulma and Shtsha-ryzyk on either side. A large number of old, smoky and dirty Buddha-figures on banners cover part of the side walls. A couple of these were said to have been brought from the north and were supposed to be of Mongolian origin.

The local administration is in the hands of a "pykh" ("thama» in Chinese) and his assistant, a "yarkhatche" (ntsungtyentu» in Chinese). The villages of Ma-chuang-tzu, Tun-hei-tzu and Yumashan pay an annual tax of 13 horses to the Chinese government. The horses are delivered to a Chinese officer at Khungeoza (about roo li to the S), who forwards them to the Djentai at Suchow.

A few of the houses I visited were poor, but they were clean and were built in Chinese style. Some of them flew a white flag with prayers inscribed on it to protect the house from sickness. The houses were built either with two rooms at right angles to each other or else in groups of 3 or 4 small houses of 1 room each, enclosing a small courtyard. Some of the windows had Chinese wooden grills, but most had large wooden shutters. The doors were either Chinese double doors or single ones. Inside, there were Chinese pictures on the walls. In one room there was a "kang" covered with straw matting, which was heated from outside. Opposite the door was the traditional altar with Buddha figures on banners, blackened by smoke and dirt. I only saw one Buddha image of bronze in the house of a lama and in a hut a carved wooden cylinder with a ball attached to it. Its revolutions round the shaft in the middle serve as a substitute for the saying of prayers. In another room there were one or two kettles let into a clay fireplace. When tea was made in the Kalmuk way with salt and butter, the kettle was placed in the middle of the room on 3 large unbaked clay bricks standing on end, while everyone sat round the kettle on the floor. All the household utensils I saw were Chinese excepting some turned, flattish, wooden Kalmuk cups. The clothes here were cut in Chinese fashion, but were often made of homespun cloth. The men wear a Chinese cap with a button or a Mongolian felt cap, a long coat sometimes of fur, with a long, narrow home-woven scarf in grey, reddish-lilac or bluc bound round the waist, a pair of half-loose trousers of coarse homespun cloth or skin, bound at the ankles with a broad home-spun bandage. They wear coarse stockings knitted in Chinese style and Chinese shoes, often with a loose legging of blue cloth. Neither shirts nor drawers are worn. The women's dress is like the men's. Their summer dress is shorter than that of the Chinese, but of a similar cut. The fur coats worn by both men and women are often bordered with padding like the Kirghiz and Mongols, but are often of better quality than the furs that are for sale in bazaars in the towns. The women's headdress is very peculiar. To each of the plaits hanging over their breasts they fasten a long, narrow strip of cloth with a couple of silver ornaments and thickly embroidered with small pieces
of coral, glass beads or stones in various shades of violet. Below this they hang a whole series of shining copper rings, used by the Chinese as thimbles, and the whole thing is finished off by a large button-shaped metal ornament, from which a tassel hangs. This long headdress almost touches the ground. Below this they also often fasten a bunch of small pockets embroidered in Chinese fashion by the women themselves. They wear the same Mongolian fur caps on their heads as the men. They have very little in the way of clothes, no special clothes for great occasions nor even any change of clothing. A new garment is only made when an old one has to be replaced. It was difficult to make ethnographical collections. Women assume this headdress when they marry, and do not remove it until they die. The bits of cloth with the corals, silver ornaments and bone buttons are removed from the dead, but the copper rings are left.

On visiting any of the Yögur households, you usually find the man at home. The women, however, are busy out-of-doors, looking after the cattle, fetching water etc. I saw nothing in the way of handicrafts, except weaving, basket making and the knitting of stockings. The two latter are done by the men. The stems of a coarse species of grass are used as knitting needles. The basket-work is rough and incomparably inferior to the Chinese. Cloth is woven by the women in long, narrow strips reminiscent of the work of Kirghiz women both in quality and style. Their primitive looms stand in the yard, the warp being fastened to two pegs stuck into the ground and the finished material wound round a third. The cloth is coarse, but, as in the case of the Kirghiz, of excellent quality. It is almost the only commodity they can sell and it is disposed of in Suchow and Kanchow for 70 tchok ( 900 tchok $=\mathrm{I}$ lan) per Chinese ch'ih ( $=\mathrm{I} / 2 \mathrm{arshin}$ ). There is no forging of iron and the Yögurs do not even make blankets, a Chinese being employed for this purpose. A few of the men are addicted to opium smoking.

They are a pastoral people with fixed abodes. There is no agriculture. Their only source of livelihood is cattlefarming. A large part of the stock of cattle belongs to Chinese in neighbouring villages. The Yögurs receive wool and some flour for herding them. Thread is wound and cloth is woven from the wool and small quantities are sold in the nearest towns.

Their principal food consists of flour and meal. Tea is made with salt, butter, cream and milk, when obtainable, and roasted wheaten flour is mixed with the tea. They make a paste of flour and water and have it as soup. Rice is made into porridge. Meat is a rarity. Sheep are only slaughtered on festive occasions, at which there seems to be very little gaiety. They have no musical instruments, nor do they dance or sing in chorus. Now and again you hear a tune being sung in the fields, but when I offered to have a sheep killed and arrange a tomasha, I was told that they never sang together. Later I found out that they sit and sing during the festivities that accompany their weddings. At my request one of the lamas sang to me. The melody was monotonous and the only word pronounced was »ovr" ( $=$ he or she has come). The lama explained that there were no songs, the singer using any words that occurred to him. Altogether the people gave an impression of being dejected and readily complained of their money troubles. They also talk rather unrestrainedly about their condition.

Unfortunately, I was not prepared for making anthropological measurements and must therefore confine myself to describing my impressions. The great majority of the Yögurs have pronounced, though not excessively prominent, cheek-bones. I saw several with oval faces, whose cheek-bones were not prominent. The majority, however, had short and rather broad faces. The nose was straight in most cases. There were some cases of turned-up noses with a half-sunken bridge and several of the women had fleshy snubnoses. The mouth was normal in the majority of cases, the lips being neither too thin nor too thick. The eyes were small and the distance between the eyes was normal. The cornee of the eye was open, not covered by a fold. The hair and beard were black. The latter was rather thin. They were of medium height. I did not see any fat people. Their movements were rather slow and lazy, except when they were trading, when they became lively and general interest was displayed, as much by the spectators as by the seller.

In childbirth the women kneel and are assisted by women only. Men are not allowed to be present. The husband spends a month in a separate room. The umbilical cord is severed with a pair of scissors by an old woman, often the grandmother of the child. The infant is washed in warm water and rubbed with butter. This is repeated a week later. Its hair is cut or shaven a good deal later. Before the birth of the child the lama reads prayers over the mother, but takes no notice of the new-born child. There are no ceremonies, no baptism, whether the child is a boy or a girl, but the nearest relatives usually bring presents of food to the parents. - In case of death a lama reads prayers. The body is burnt naked, in summer within three days, in winter within 7 - 10 days on a bier made of faggots. No oil is used, but a kind of Chinese spirit to start the fire. Nothing is placed on the bier except the body, which is burnt in a recumbent position with its head to the S . A young man or woman who dies after a short illness is buried and the place is marked by a small mound of earth. Guests and those present at the burial are entertained in the home of the deceased according to his means and the lama's services are rewarded by gifts, without his having any right to a share in the property of the deceased.

The property is inherited by the widow, who surrenders it to the male heirs if she remarries. Daughters possess no rights of inheritance. Marriage is forbidden between cousins, between nephews and aunts or nieces and uncles, between brothers-in-law and sisters-in-law or between stepchildren and stepfathers or stepmothers. - Wives are bought. The choice is made by the parents without consulting the young couple. The negotiations are carried on by some old woman, who is sent to the girl's parents. No festivities take place. The price agreed upon for the bride is either paid down or in instalments. The agreement is often made while the bride and bridegroom are children. Men marry between the ages of 15 and 30 and girls at the age of $16-17$. A younger brother takes the place of his elder brother, irrespective of any difference in age, in case the elder brother dies, but if the marriage has already taken place, the younger brother cannot marry his sister-in-law. The young couple are not allowed to see each other before the wedding. The bride is given a dowry according to the wealth of her parents and in proportion to the sum paid for her. At the wedding the lama reads prayers in the homes of both bride and bridegroom, more emphatically in the latter. Guests assemble in the home of the bride and are enter-
tained and accompany her to the house of the bridegroom. The bride rides a horse, wears her dowry and carries a suit, a cap and a pair of boots for her future husband. The parents of the bridegroom are not among the guests and the bride is not accompanied to her new home by her parents. On arrival she is received by some women, who lead her into a tent put up for the occasion. Her hair is plaited before she starts out. All the guests are entertained as well as possible by the father of the bridegroom. When the lama considers the moment propitious, the bridal pair is led in and kneels first before the altar and then before all the older people present. A sheep is killed and Chinese gin is drunk. The men are fond of drinking, but the women are not. The entertainment is usually so meagre that there are no real drinking bouts. On the following day the young couple visits the parents of the bride, bringing some small gift, such as a piece of cloth or a bottle of gin or whatever it may be.

Weddings are about the only festivals of the Yögurs. At New Year they prepare rather more food than usual, the wealthier men kill a sheep, but no guests are invited. They do not have any gatherings for religious festivals or sacrifices. The lamas only read prayers on the ist and 15 th of each month, because, they say, nobody ever attends the services.

There is a certain want of manliness among the men. Quite a number of them possess guns that are fired by means of a wick, but they do no shooting, nor do they indulge in games, wrestling, sports on horseback, races etc., like the Kirghiz and Kalmuks. Possibly this may be due to their poverty. The richest Sarö Yögur is said not to own more than 6 or 7 horses, lo cows and roo sheep.

The lamas are ignorant of medicine. In case of illnsss they are called in to pray. In some cases the lama burns scraps of paper round the patient, but I could not obtain any explanation of the reason for this procedure. "It has to be so according to our teaching" was all the explanation I was vouchsafed I was told that the tribe had decreased greatly in numbers. They do not intermarry with the Chinese or the Tanguts, the so-called Khei Fan zu (black Fanzy). There is no polygamy, even if a marriage remains childless. Divorce is unknown.

To-day we rode in a NNE direction over the same slightly porous and very saliferous December I ground to the village of Yem-tzu along the highroad from Suchow to Kanchow. In the early Hua-chuan morning we saw a few cattle near the houses of the Yögurs. They were lean and small. My tzu village. host, the lama Kua, had promised to accompany me to Jentche. He rode a pony, more like a large rat than a horse. It travelled at such a pace, however, that my big Philip with his bad leg was unable to keep up with it. The lama complained of the bad soil and the coarse grass that did not fatten the cattle, and it must be admitted that the grass is very coarse.

There was not a breath of wind, and I, who dislike cold weather in general, thought the morning was lovely, but the lama, a young man of 28 , complained of the cold. Time after time he took my matches, dismounted and set fire to a clump of grass, over which he crouched for a time before he caught us up again. I really believe any one of their women would have been hardier. I asked him to sing something and he regaled me with the same "ovr" in indescribably dull and dreary tones.

The Chinese officer, who had accompanied me from Shuang-ching-tzu in order to "protect" me from these most peaceful of all people, told me of his varying fortunes. He had served with distinction in the struggles of the Chinese in suppressing the Dungan revolt and had been rewarded with a transparent blue button. After completing their task the greater part of the troops had been disbanded and with the ruthlessness characteristic of the Chinese Government all the officers who had been unable to secure favourable appointments thanks to their good relations with the generals in command, were dismissed irrespective of the colour of the buttons on their caps. This brave man, who had, according to his own statement, captured the renowned Bejan khu after 7 days' hard fighting 4 days' march N of Ansi, had, after various ups and downs, had to accept the post of a pazung in the local militia. Now he rode along in a threadbare coat on a lean donkey as my guide and begged me to put in a good word for him with the Viceroy at Lanchow. He told me that, for a good bribe, Bejan thu had been released by his tungling. Detachments of Chinese troops had crossed the mountains from Sining to Kouwai, a few days' march E of Chia-yu-kuan, others had taken the road from Chinta to Barkul. But his information was doubtful. The main body had gone by road over Ansi and Hami.

Deep in conversation, we covered the 40 or 50 li to Jentche almost without noticing it. The village has 80 houses and takes its name from a large salt lake, the white surface of which could be seen glistening just N of the village. A low, but long sandy eminence extends to the village from the south. N of the lake the hills, rather more marked than at Shuang-chingtau, but of the same character, run in a W-E direction. There are a couple of old tuntai towers between them and the lake. I was told that in the time of the Emperor T'ang the highroad passed there and then via the present village of Yeng-jang-che (where, indeed, I noticed an old tuntai tower) to Suchow. There is a massive ruin, like an impanj, in the village. It is supposed to be of the same date. Another dilapidated little impanj stands shut in by the houses of the village. I pazung with 15 men of the Cheng-i garrison is stationed here. There are no tilled fields; the inhabitants make a living out of passing travellers and by exploiting the salt lake, for which they pay the Government an annual tax of 800 tao. There are 2 wells and several springs with good water, 4 sarais, one very comfortable one for mandarins, and a mapoza station. A group of travellers was busily plying its chopsticks in 3 or 4 dirty kitchens.

After taking leave of my Chinese protector and the hospitable lama, we proceeded along the highroad eastward. The ground consisted of deep sand with a very insignificant rise to the east. A journey of 5 miles brought us to Ma-lang-chin-tzu, a so-called „joutanza" (halfway station) with a couple of houses. The ground was now saliferous and slightly porous with a little vegetation in the shape of reeds and low grass. 6 miles from it there is a small village, Shengo, with a ruined wall, several sarais and a kitchen. Just $E$ of it the ground is low-lying and marshy for about 800 paces. Here the road crosses a shallow ributary of the Ch'ih-ho, which comes from some springs 2-3 li further S . Beyond the hills in the N we saw some small mountains going approximately in a $\mathrm{W}-\mathrm{E}$ direction. In the E the road is intersected by a slight rise in the ground. The road, which again led through deep sand, took us up to its summit, about 2 I/2 miles distant. For about 2 miles it pro-
seeded along a level sandy plain, after which we gradually descended along the river Ch'ih-ho, which seemed to flow in a W-E direction. Darkness had fallen. On the right we could just distinguish the faint outlines of buildings. The road goes along the left bank of the river against the current.

Hua-chuang-tzu was $101 / 2$ miles from Shengo. $W$ of it, next to the village, we crossed a shallow tributary of the Ch'ih-ho, quite 10 fathoms wide. The village contains 180 households, scattered over an area of $7-8$ li to the N, NW and NE. A neglected impanj. 7 or 8 shops, 4 sarais, I mapoza station and itindsjy with 6 men (instead of io) of the Cheng-i garrison. Wheat, millet, peas and a little rice are grown. Snow falls between the roth and and Chinese months, but is said to melt almost immediately. Burans occur from he west, but very irregularly and they only last a short time. Rain falls between the ard and 8th Chinese months, but not frequently.

At first the ground was very sandy. On the right, at a distance of a few miles, we noticed a series of low hills with soft outlines, running eastward. On the left flowed the Ch'ih-ho, which was only visible at times. Groups of trees and single houses indicated the course of the river in the distance. We parted from the river for a time in order to ride round a lake, a couple of miles in width, and then drew near to it once more. The weather was cloudy and grey. Snow, which had begun to fall in the night, continued to fall. A strong NW wind swept away the snow and exposed large stretches of the uneven road, covered with ice. Though the horses walked carefully, they kept slipping constantly.

In $71 / 2$ miles we reached Khei-chien, a village of 300 houses with a neglected impanj. Wheat, rice, peas, tchinkho, cotton, tchumiza and millet are grown. The average crop is 6 fold. There are a short bazaar street, 4 sarais and 6 men under the command of a nöwäi of the Kao-tai garrison there. From here onwards there is tilled land all the way to Kao-tai. Small tilled fields, often at slightly varying levels, enclosed by low walls of earth and separated from each other by innumerable arias, large and small. The road, often passing at some depth between the fields, was firm, the soil consisting of sandy clay, interspersed at times by patches of sand of varying size. Water had collect and frozen in the low-lying places. The houses were spread out, many being large and enclosed by a high clay wall. The trees were low, many bent and very thin. The bridges were very curved, but in satisfactory condition. We crossed only a couple of deep ariqs. The rest were insignificant. $31 / 2$ miles from Khei-chien we came to a tributary of the Ch'ih-ho and continued along its bank for a mile or two. Its name is Khumi ho, and at the place where we crossed it, it was over 15 fathoms wide and shallow with sandy banks. $2 / 3$ of a mile further on lay the village of Yang-ta-tzu or Seining pu with 200 houses and an impanj. About 2 miles from it was the village of Tingjuen pu or Tingnan pu with 400 houses and an impanj. Another 2 miles further Ehr-shi-li-pu with 100 houses and another impanj. $21 / 2$ miles beyond, there is marshy ground on the left. A mile from where it begins lies the village of Ba-li-pu with 40 houses and a small impanj.

The distance to Kao-tai was $3 \mathrm{I} / 2$ miles, but before reaching it we crossed a fen-like marshy place, $2 / 3$ of a mile in width, the road leading over a bank. This almost leads into

## December $I$

Town of Kao-tai.
a small bazaar street on the $W$ of the town. The town itself is a good $\mathrm{I} / 3 \mathrm{sq}$, mile in size. On the $S$ of it there was a small mao with a tall tower. In the $N$ between the Ch'ih-ho and the town there is an open, flat plain. The wall is $5 \mathrm{I} / 2$ fathoms high, with a crenellated parapet of baked bricks. The arches of the gateways and the parts of the wall they are let into, are of the same material. The gates on the W and E have large buttresses, the corner buttresses being smaller. Some have small clay buildings on the ramparts. The whole thing is neglected, and there is no moat. The space inside the wall was sparsely covered with dilapidated houses. There were many memorials, but they were small and ruined. The bazaar street, on which there are many shops, some fairly decent, leads from one gate to the other. Another main street runs from N to S , dividing the town into two equal parts. A couple of lanes cross it, running parallel to the bazaar street. There are no buildings or temples worth noting. Near the E gate there is a small suburb, slightly smaller than the western one. There are said to be about 300 shops and 9 sarais in the town, including the suburbs. Trade is negligible. Only 7 firms are said to have an annual turnover exceeding 6,000 lan. The population is supposed to amount to 700 ntjan, excluding the owners of the shops. Calculating 3 persons per tja , this would mean scarcely 3,000 people. The district contains the following biggish villages, each with its own Shang-ja.

Counting from the town:



The following villages, said to be inhabited by Huang Fan zy, lie about 200 li SW of Kao-tai in the mountains: Jenjukhö, Ukalatia, Pakalatia, Syshan wan, Jakalaktia. They are under the supervision of the juti at Khungeiza.

Wheat, tchumiza, millet, peas, and rice are grown principally in the district, besides some huma (an oil plant) and opium. The crop is said to have been so fold formerly, now 8 fold. The cause is the absence of rain in recent years. The quantity of livestock may be estimated at $3-4$ cows, $5-6$ horses, 100 sheep and 2 donkeys among the rich; 2 cows, $20-40$ sheep, and $2-3$ donkeys a mong the moderately well-off; and $2-3$ donkeys among the poor. The proportions are as follows: rich $10 \%$, moderately well-off $45 \%$, poor $45 \%$. Annual tax 7,785 tan.

There is not much trade done in wool. It is bought from the people in the mountains by representatives of foreign firms in Khungeiza.

A Shenguan is resident in the town. The garrison consists of an in ( 45 men ) under the command of a tusy with i tiendzung, 3 tindsjy and 3 nöwäi as officers and i shao( 15 men) matui of the Tidu cavalry at Kanchow under the command of a shaoguan.

The local administration is in the hands of a Shang-ja for each village. The villages are as follows:
Reckoning from Momu:

| N | Sji yö hao $\ldots .$. | 60 | tja | 700 | sheep | - | oxen | 100 | camels | 700 | tan |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| NE | Lie tchang hao | 40 | $"$ | 300 | $"$ | $50-60$ | $"$ | 25 | $"$ | 500 | yearly |



At least 1 horse can be calculated per tia. The annual tax levied is 1,135 tan. The garrison of the town consists of 15 men under the command of 1 pazung of the Cheng-i garrison.

December I 8 th.
Sha-ho-Kou

## village.

 some smaller ones further on. There are one or more impanjes, usually large and dilapidated, in all the larger villages. The ground is tilled everywhere, as it is on the W of the town. There are small, well cared for fields, often lying higher than the road. The district seemed to be very fertile. About $21 / 2$ miles from the town we passed the village of Tungbalipu and about 2 miles beyond Foo yäng with 3 impanjes. $2 / 3$ of a mile further on a small river flowed on the right of the road and formed an extensive marshy space. The road led across the latter for 20 minutes.An inn, Luotung, stood E of the road. On the right of the road barren ground extended for some distance, going over to the left side of the road for a short distance. Beyond it, far to the S , we could see houses and trees. In the N there were many houses in the direction of the river. The mountains in the $S$, which were now very large, seemed to fall away considerably to the E . N of the river the mountains seemed to become quite level to the E. Behind them a rather higher, long mountain was visible. In the ESE straight in front of us a high mountain indicated a bend in the river. Not quite 4 miles from Foo yäng lies the village of Vangchienpu on the $N$ boundary of the barren ground. $21 / 2$ miles further on, the road runs along a low, badly built embankment across a stretch of marshy ground, about $1 / 3$ of a mile wide. About $1 / 3$ of a mile beyond we came to marshy ground on the right, extending as far as the town of Fu-yeh. The latter is 14 miles from Kao-tai. This little town with a population of about 150 families ( tja ) and 58 shops is the residence of a tin, subordinated to the Djifu at Kanchow. The garrison consists of an in ( 20 men ) under the command of a shubei and I tindjy. Another in of about the same strength is quartered S of the town at Li Yuan under the command of a tusy.

The Fu-yeh she district (of the Kanchow djifu's district): the local administration is carried on by 9 Shang-ja, whose districts are of the following size:

No. I NE of the town contains 7 villages with 790 tia 6500 tan grain annual yield


An annual tax of $5386 \tan$ is levied.
Wheat, millet, tchumiza, peas and opium are grown. The crop is 8 fold, except in the 4 southern districts $(6,78$ and 9$)$, where tchinkho is also grown and the crop does not exceed $5-8$ fold. The livestock may be estimated at $2-300$ sheep, $2-3$ horses and 4-5 oxen among the wealthier tia and $1-2$ oxen and 1 donkey among the poorer ones. In the northern districts about $50 \%$ of the population can be included in the category of the richer tia, in the southern districts, situated close to the mountains, only about $30 \%$. This estimate is, of course, exceedingly approximate. - As regards mineral wealth, the coal from the neighbourhood of Li Yuan (belonging to the Fu-yeh district) should be mentoned. - The town of Fu-yeh with its suburbs contains $70-80$ tia and 80 small shops. - I shubei with 2 officers and $30-35$ men of the techy ping" militia are quartered there as a garrison.

Roughly $11 / 3$ of a mile from the town there are sand dunes in a $S W$-NE direction, $1 / 3$ of a mile beyond again tilled fields and very sparse trees. Our surroundings had long since lost the fertile and well-tended appearance of the environs of Kao-tai. The houses were rare and looked neglected and there were frequent untilled stretches between the fields. The ground was low-lying and often covered with patches of ice. 4 miles from the town we passed a fairly large village. The road had taken a S and SSE course so far, but now led $E$ for some time. I $1 / 3$ of a mile further on we came to a flooded meadow on the right, about 2 miles square. We crossed 2 small rivers, $11 / 2$ and 2 fathoms wide. 15 miles from Fu-yeh we reached our destination, Sha-ho-Kou, a large village of 120 houses and 3 sarais and about 40 shops. A detachment of 10 men with a tindjy of the Li Yuan in were quartered there. Arbah roads lead from Sha-ho-Kou direct to Kao-tai (past Gu i) and to Wing shui (and thence probably to Suchow and possibly further east). This road is used for conveying salt from Jantche, when the highway is under water owing to the flooding of the rice fields.

The pheasants, of which there are many in the vicinity of Kao-tai, had detained me for 3 hours and night had fallen long before we reached the sarai at Sha-ho-Kou after riding 30 miles.

Immediately to the $E$ of the village we crossed a river of the same name, flowing in December a N direction. The road took us in a slightly slanting direction over the bed, about $1 / 3$ Kanchow. of a mile wide, in which there was only a little water. About $1 / 3$ of a mile further on we
crossed a smaller river bed. During the 5th and 6th Chinese months these river beds are said to contain a good deal of water for periods of $2-3$ days, but they do not impede traffic. The village of Hsiao Hotang with 110 houses lies less than 4 miles from Sha-ho-Kou. 2 miles beyond we passed a small river, Sha-cheng-tzu-ho. A picturesque group of temples called Pa ts mao lies a little lower down the river. 6 miles further on we came to the river Ingliung ho and $2 / 3$ of a mile beyond to the village of Pa-cheng-tzu with about 50 houses and an impanj. A mile from there we crossed a dry river bed, 500-600 fathoms wide. We crossed another, about 200 fathoms wide, about 2 miles further on. Here a barren stretch of loose earth began, lightly strewn with fine gravel. I I/3 and 2 miles beyond we crossed two more dry river beds, 200 and 100 fathoms wide, enclosing a narrow strip of tilled land coming from the south. The barren ground now extended for several miles in front of us. Its surface was uneven and formed small undulations or mounds. Further on we came to a number of mound-shaped sand dunes. Their direction appeared to be $\mathrm{N}-\mathrm{S}$ or NNW-SSE. We found 2 small ruined houses among them. On the right, at a distance of about $2 / 3$ of a mile, we caught sight of the ruins of a tuntai tower and a longish wall. Bits of baked bricks were visible in many places. They were particularly numerous towards the eastern boundary of the barren ground. Here we crossed another small river and a mile beyond we reached the village of Neize. The local people told me that the brick ruins were those of a town that was inhabited in the time of the Emperor Ming by a tribe called Khei shui kui. The local Roman Catholic missionary was of the opinion that the former town of Kanchow had stood there and that it was there that Marco Polo had seen the grave of a Tartar princess.

Immediately beyond the village of Neize a gravel plain begins on the right of the road and extends for several miles to the E and SE. $12 / 3$ of a mile from the village we crossed a river, 2 fathoms in width, in a bed 20 fathoms broad. $2 / 3$ of a mile beyond we reached the edge of the Ch'ih-ho's bed, several miles wide. It is connected with the gravel plain already mentioned, which evidently forms the bed of many of the Ch'ih-ho's arms. We rode across the bed at an angle and crossed 7 arms in doing so, 20, 4, 2 and I fathom wide. Bridges of logs with 4 and 3 stone caissons respectively in the stream led across the two largest arms. They were as broad as an arbah and in satisfactory condition on the whole. We reached the opposite bank after covering $2 \mathrm{I} / 3$ miles. $1 / 3$ of a mile further on we crossed a similar bridge over a deep-lying arm of the river, 7 fathoms wide, and a mile beyond another small one. Sparsely populated ground, on which scattered poor trees were growing, goes along the right bank of the Ch'ih-ho. The road turned almost due S . On the left there was a wide, open, low-lying plain. After passing for a few miles through ugly country, partly tilled and populated, partly low-lying, with a few miserable trees, we entered the enormous walls of Kanchow, built of baked bricks. The distance covered during the day was about 28 miles. The Chinese estimate it at 7 l li. Here, however, their li are considerably longer than W of Suchow. There we covered to li at a walking pace in $45-50$ minutes - here it takes 65-70.


I spent four days in Kanchow, studying local conditions, but I was not able to complete December 25 this and must leave the description of the place until I return from Yanga. On the morning Kan-chun-pe of the 24 th $I$ started with the intention of making an excursion to a Tangut monastery not village. far off in the mountains. The lamas and the local population are said to be sHuang Tan zy* and to speak a language similar to that of the Kalmuks. Thanks to the Shenguan I was able to hire 4 pack-horses from Dungans who had arrived from Khodjo with a consignment of rice. Each horse has a man in charge of it, a luxury I had never yet allowed myself, but which leaves me indifferent, as I pay them 2 lan per day.

I was not able to see much of Kanchow. I called on the three highest mandarins of the place and on the Roman Catholic missionaries.

The Djifu is an old mandarin, born in Peiping, where he had done all his previous service. He is of the commonest type of mandarin and makes no impression on a stranger. The local Shen is said to come from Tchili; he is young and energetic. Unfortunately he was prevented from seeing me and I considered it awkward to receive callers in my little cabin. He is said to be strict and is feared by the inhabitants. The highest local military commander is also the first military mandarin of Northern Kan Su. He lives in a very spacious and imposing yamen. This huge, stout general of 67 with his moustaches and jovial appearance looked martial and imposing. He was more like a Turkish pasha than the Chinese officers I had seen hitherto, which is not surprising, for the old fellow is a Dungan and, as a renegade, played a distinguished part in suppressing his kinsfolk after their
last bloody revolt. He seemed to be fond of recalling that time, for he kept referring to episodes of the time during our conversation. The guerilla leader, Bejan khu, is surrounded with the glamour of a hero in the eyes of the Chinese and they are fond of telling of their encounters with him and his followers. Ma Titai had marched from Tun-huang, to which he had advanced in Kan Su, to Hami and thence over Turfan, Qarashahr etc. to Kashgar and Yarkand, where he served subsequently. He assured me that the troops had used the Ansi-Hami highway and had reached Barkul from there, not over Chinta. During his subsequent service he had fought against the French in South China and later, in Eastern China, he had met Englishmen, Frenchmen and Germans. In his opinion all European armies were approximately on the same level; it is only in their ways of marching that a difference can be noticed. He did not seem to be particularly enamoured of the Japanese and ascribed their victories to the difference in distance that separated the combatants from the seat of war. Now, he considered, they were exhausted and not in a fit state to start a new war. European drill was to be introduced among all Chinese troops. There was an instructor in his yamen, who had been trained according to the French system, and he had been entrusted with the task of superintending the drill of the garrison troops.

The Roman Catholic mission at Kanchow, which has existed for a few decades, is under the control of two young missionaries, Staffens, a Dutchman, and Heizemans, a Belgian. These young men seemed to take no interest in social and political questions or anything outside their own special work, but their courtesy and their readiness to help with good advice are worthy of acknowledgment. The missionary station is large and possesses a beautiful church with mural paintings, decorative tiles, Gothic arches and spires. Bishop Hammer's coat of arms, crowned by a large straw hat and ribbon, is seen on the wall of one of the buildings. The horrible martyrdom he suffered during the last Boxer rising is still too fresh in people's memories to need recalling. I developed photographs the day before yesterday with the help of the Rev. Mr Heizemans. In order to keep warm, in the fusty sacristy, we had placed a bowl of coals under the table, which was covered with rugs. The fumes became so overpowering, however, that I suddenly felt ill and scarcely managed to reach the courtyard before I collapsed.

The road to the Tangut monastery at Yanga runs through the village of Kan-chun-pao, 16-17 miles WSW of the town. We rode through the W gate and along a broad, lowlying and very stony, but good road. The country we passed through was very densely populated, the houses prosperous looking and often large. There were not many trees and the ground was often intersected by small ariqs. About 6 miles from the town we reached the bed of the Ch'ih-ho which looked like a sea of gravel, especially to the S. The weather was dull and there was a stubborn little wind blowing. No mountains were visible either in the $S$ or in the $N$. We crossed 7 arms of the river, one being considerable and reaching a width of 44 feet and a depth of 0.5 m . The current was swift and the bottom stony. In a mile and a third we reached a rise in the ground in a direction $16^{\circ}-195^{\circ}$, which represented the limit of the bed; some trees grew beside it, but beyond the same barren plain of gravel extended as far as we could see to the $S$ and $N$. In the $N$ we could see trees running parallel to our road, indicating the boundary of the cultivated area. Two enormous ariqs
accompanied our road for a considerable time. Judging by the sand that had accumulated at the bottom, they had long ago been abandoned to their fate. On the right of the road the ground is sandier. In two places on the road there were the ruins of sheds or houses and a couple of tuntai towers. Next to the latter there were two dune-like mounds of earth - evidently ruins. Soon after, ie., $5 \mathrm{I} / 2 \mathrm{miles}$ from the river, the cultivated area begins in a $\mathrm{N}-\mathrm{S}$ direction. For several miles the road led through a neighbourhood like the one we had left behind us $\mathbf{W}$ of Kanchow.

In order to make it easier to gain the confidence of the Fan ry I had requested Ma Titai for a soldier. He was to meet me here from Li Yuan (Livenku), about 30 li to the W. As he had not turned up, I was forced to wait a day and send word to Li Yuan. The road to Yang is said to be difficult at this time of year. - I spent Christmas eve reading some newspapers of last August which the consul had forwarded from Urumchi and which had reached me at Kanchow

My messenger returned yesterday morning with the news that two soldiers had left and would await me halfway to the lamasery. The place where it is situated is known as Kanglungsu, not Manga, as I had been told. With some difficulty I found a guide among

December 27 The Lamas Kanglungsu. the local Chinese and we started at $8 \mathrm{a} . \mathrm{m}$. It was a sunny day, though rather windy. We rode south for a couple of miles and then turned SSW, continuing in the same direction until we reached the mountains, where our course was WSW for the greater part of the journey. When we had covered $12 / 3$ of a mile the cultivated area, thickly strewn with houses, gave way to a grassy slope rising gradually towards the mountains in the south. There were a few houses scattered over the bare slope. For the greater part of the distance to the mountains we rode along a dry, perfectly flat river bed which led us towards the mouth of a gorge that opened towards the E. We reached this 4 miles from the edge of the tilled area. From the mouth of the gorge the mountains extend to the SE in a number of small ridges of about the same height. On the right their course is NNW, almost N, and a pointed mountain rises from the very prominent group they form and towers above the rest. The river Hrargol or Ta ho winds along the bottom of the gorge, its channel, about 3 fathoms in width, being covered with ice at present. The river had dug itself a bed of about 200 fathoms in breadth, to the right steep bank of which the road led. Above these steep banks rose slight conglomerate heights on either side which soon became considerable mountains. The road soon led us across the frozen channel to the opposite bank and immediately back again to the bank along which we had been riding. This little manoeuvre was repetaed incessantly throughout the day.

The banks grew stonier, the deeper we penetrated into the gorge, and the ice, if possible, more slippery. Some trees grew in the river bed at the mouth of the gorge, which some Chinese were felling and conveying to the plain in the form of logs, tied in pairs to the back of a donkey, while the other end of the log dragged along the ground Further up the gorge we met several such donkey caravans with logs from the neighbourhood of Kanglungsu. Either one of our horses would slip and stretch full-length or a donkey with its pair of logs would fall helpless on the slippery ice. Fortunately, the ground was free from snow,
for the road, being so stony and uneven, would then have been absolutely impossible when frozen over. At times the horses had to climb several fathoms up a rough, steep spur of rock, at others they would wriggle like snakes between blocks of stone of all sizes. The mountains were not very high. The walls of rock were exposed and many of them were of a beautiful red shade. There were no grassy slopes. Very soon the gorge grew narrower and the sides of the mountains became very steep. Not quite 3 miles from the mouth of the gorge there was a military post ( 2 or 3 men ) of the Li Yuan garrison, quartered in a rectangular tower built of stone. A mile or two beyond we passed a small temple on the steep slope of the bank and immediately after, in a wider part of the gorge, a poor house inhabited by Chinese. At times the gorge became slightly wider, but very soon grew narrower again. The road grew rougher and rougher. About 8 miles from the military post the mountains increased considerably in size. The slopes were less steep and firs appeared on those facing N and W .

About 12 miles from the military post we came to the spot where the two arms of the river separated, after crossing a meadow formed by them, a couple of miles in length. We followed the arm on the left, called White gob, and for the remaining 3-4 miles of the day's journey we proceeded in a definitely southward direction. The mountain grew slightly smaller again. Grass grew on the slopes and on the banks of the river.

The Kanglungsu lamasery stands on the lower slope of some small hills. At a distance only one of the conical columns of a stupa so common in Buddhist countries was visible and we did not catch sight of the collection of houses until we were almost among them. It consisted of a large temple, painted red, brown, grey and white, with gilded roof decoration, and a smaller temple, with a couple of large and several small buildings grouped round it. With the exception of a group of houses like a temple, occupied occasionally by the senior lama of the tribe, and a couple of buildings, one of which was used by the Thumb during his visits and the other belonged to an old lama, now dead, the houses can scarcely be called anything but low huts. Timber is the principal building material, only the interstices being filled with clay. Columns are used very much both indoors and in the outer walls. Most of the rooms are completely dark, very small and black with soot. A lang, heated with coal and dry manure, lifted into the room by removing a couple of boards in the ceiling, takes up nearly all the space. No Buddha altars or decorations of any kind were visible in the houses of the lamas I visited. Some blankets, a fur coat, cups, bowls, a basin for coal and a couple of chests or cupboard-like boxes was all that was to be seen. A wide, deep bench, like a bed, without arms, for which the wall served as a back, stood outside the door. It was a favourite seat and was probably used as a bed in summer.

The temple, said to be the principal religious shrine of the Sher Yögurs, was large and rich. In size and architectural style it resembled the monastery of Kura belonging to the Surgan summon Kalmuks. The same colonnade of small wooden pillars led up to the altar, on the left of which stood the armchair of the head lama. The front of the building faced east and was decorated with pictures of warriors like those you see outside any yamen. The four sides of the temple were formed of four narrow buildings with decor-
ate Chinese roofs; those along the front and back walls considerably overtop the others. The centre enclosed by these four buildings, to which there are no inner walls, was two storeys in height and crowned by a quadrangular roof with carved rooftrees with a carved, gilded cone at the summit. Rooms, used for storing various things, ran round the walls of this second storey under the same roof. The fourth wall, over the entrance, was free, admitting the light. On the inside the three walls of this gallery were covered with Buddhist pictures in bright colours and various banners with Buddhist designs. In the body of the temple, much enlarged below, the side-walls were occupied by open cupboards, divided into square compartments, containing a great number of Buddhist books. The Tangut lettering was ornately inscribed on long, narrow, loose leaves, many of them with an artistic border, bound between two wooden boards of the same size and held together by a cord. The red cloaks, headgear, staffs etc. of the lamas lay along the front wall. The middle of the back wall was occupied by images of Buddha with lamps and various small dishes in front of them. On both sides the walls were covered from floor to ceiling by quite a hundred small compartments, screened by curtains, each containing the same little image of Buddha. The place of honour behind the altar was occupied by a bronze "Tsunkoa" (the same in the Yögur and Tangut languages), half a metre in height and swathed in a piece of red cloth. Before him stood "Stonba», also in bronze, but in miniature. On either side Shagdur (Shagtut?) was placed in two slightly different forms and beyond him on the left (from the entrance) „Shatshanrygzyk» and on the right "Stongskön, both in the form of gaudy banners. Still further to the left there was another fine bronze Buddha and some of painted clay, and to the right three bronze Buddhas forming three separate groups. Numbers of banners with pictures of Buddha hung on the walls and were suspended from the cornice between the lower ceiling and the wall of the gallery, their bright colours faded by age. A passage-like smaller hall runs behind the altar, filled with large images and various monsters round all the four walls. The same Stongskö was enthroned in the most prominent place opposite the entrance, richly gilded and of colossal size.

There are about 15 lamas of all ages in the monastery. The younger ones in particular were extremely obliging and friendly, possibly owing to the presence of two soldiers who had been sent from Li Yuan in connection with my visit. The senior lama of the Shera Yögurs only stays here when special festivals have to be observed. At other times he lives 3 days' journey further south in the mountains. He is still a child, growing up under the tutelage of Yögur lamas. He is a child of their tribe and is to succeed their Shake lama who died 8 or 9 years ago. He is now brought to Kanglungsu for festivals that occur every sixth and twelfth moon.

A couple of tombs on the hillside were marked by poles and stone cairns in memory of some highly respected lamas. When the Yögurs pass them, they dismount and murmur prayers in a subdued voice, but here you never hear the solemn music of the lamas as among the Surgan summon Kalmuks or the Torguts. However, if you wander among the rows of huts, the tinkling of a little bell and a monotonous murmur from inside some house tell you that here, too, the hour of prayer plays a prominent part in the life of the people. The lamas subsist on voluntary contributions for the prayers they say. They


Sher Your woman, aged 24.
do not practise medicine and only a very few of them can read the Tangut language. In case of serious illness a lama is called in and a fortuneteller to foretell the future. The fortuneteller is also a lama. He uses three dice and consults a Tangut book for the meanings of the different combinations. The people are very generous, it being the custom in case of death for the lamas to receive from one-third to a half of the property left. Only male descendants enjoy the right of inheritance. The widow is maintained by her son or sons, who frequently do not divide the property. Daughters only inherit in the event of there being no sons.

In spite of great difficult; I was able to take the anthropological measurements of 12 persons yesterday. Several of the lamas, who had accompanied me most faithfully, disappeared as soon as they saw me produce my craniometer, and no gifts of knives, mirrors and so forth to those who were brave enough to face the peril of being measured, would tempt them to cross the threshold of my room. I started today in order to return the visit of the Thumb, Rentshen Nurbö, who had had the courtesy to call on me at the lamasery. He undertook to be my guide personally.

When we left the monastery and its red-garbed, close-shaven lamas in the brilliant sunshine, the neighbourhood seemed more beautiful than when I arrived. The Kiito gel comes from the south, winding between two mountain slopes with grass growing on the western slope, while a thick fir-wood creeps up the eastern one. From the east a gorge, twisting and turning between grass-covered hills, opens up opposite the monastery. Its northern slope, facing SE, leads in several long stages up to the higher mountains which we passed

The 24-year old Shera Mögur woman with her son.

yesterday and the granite summit of which forms three long peaks, fringed with firs protruding from their northern side. In the sun the burnt grass is the colour of sandstone, against which the grey mountain ridge stands out effectively with its dark border of firs. The white and bluish-grey ribbon of the Kiito gol, covered with ice, disappears among the mountains in the north. I said goodbye to a group of lamas who had assembled to see me off, no longer scared by the craniometer. On the hill in front of his house I could see the tall figure of the Thumu mounting his horse in the midst of lamas and laymen, who bowed before him with outstretched hands. We rode westward over the little ridge, at the foot of which lay the monastery, dividing the Kiito and Hrar gol. A praying site stands at its summit with two huge heaps of poles and thin trees. Descending a steep slope, we reached the bottom of the narrow valley of the Hrar gol. Its course was SSW-NNE, almost $\mathrm{S}-\mathrm{N}$. To the south we saw some wooded hills and mountains and far to the S the gorge seems to be closed by a bright, snow-covered mountain, which the Thumu called "Hanshoru». A bridlepath leads along the gorge of the Hrar gol to Sining which is said to be $12-15$ days' march distant. There is said to be a large pass.

After riding for a few minutes down the river, we turned to the west along a narrow side-gorge leading up to a pass that was visible from its beginning. It is of no great height, but the ascent is steep. At the place where the road leads up to the Zartung pass, a track goes westward. It is said to lead to Khungeiza-Suchow in 4 days. We crossed several small passes and the road sometimes ran through unpopulated districts. It cannot be traversed in winter. The pass remains at the same height for about a mile, the road leading over grassy
mounds, covered with snow at present. On the right we had the same chain of mountains, fringed with firs, that we saw to the N from Kanglungsu. It rose abruptly from the surrounding country, but did not continue any further to the west. On the left, at a great distance, we could see a mountain range, wrapped in snow, which the local people call Longshur». It forms a continuation of the Hanshoru mountain which we saw from the bottom of the Hear got gorge. In a direction of $101^{\circ}$ we could see a mountain peak clearly standing out from the chain. Its name is Galdjan and the Neiman gold, a tributary of the Ch'ih-ho that flows past Li Yuan, is said to flow from it.

The descent was, if possible, even steeper than the ascent, but we soon reached the bottom of a fork-shaped gorge, in the western branch of which the home of the Thumb was situated on a small river, Kluadjek gold. It consisted of a fair-sized wooden house with a couple of cabins built of thin logs, the roofs being extended to form small half-open outhouses. The main building consists of two spacious, barn-like rooms, entirely unfurnished, with a hole in the ceiling and a kettle placed on 8 bricks in the middle of the room and a small alcove partitioned off in one corner, furnished with a kang covered with rugs and blankets, on which the Thumb enjoys his opium-pipe. On either side of the princely dwelling there were two circular enclosures made of poles, for cattle. Close by stood a couple of low grey tents raised on a low foundation of thin logs caulked with manure, each having an enclosure for cattle. These were typical Sher Yögur dwellings, for there were no wooden houses excepting Kanglungsu and the house of the Thumb.

The Shera Yögurs inhabit the mountains on the following rivers, all of which are ributaries of the Ch'ih-ho or of its tributaries: Neiman or Longsor (flowing past Li Yuan), Tshulung, Idem, Sheirik, Hear, Kiito, Tashtyng, Khan and Pazyng goo (upper reaches of the Ch'ih-ho) or Qara morin, as it is called in its lower course. The Thumb, whose knowledge of his own country seemed rather limited, said that his people inhabited a district, extending $2-3$ days' ride westward, the same distance eastward and 3-4 days southward from Kanglungsu. He estimated that there were about 300 tents of them often at a distance of $10-12$ li from each other. They were governed by about a dozen thumbs subordinated to my host. The dignity of thumb is hereditary and is called mnujun" in the Yögur language. It carries with it the dignity of being a Chinese official. The thumb dispenses justice, apportions the burden of taxation and administers the tents belonging to his district. Important cases are referred to the senior thumb. They receive no pay, but are given small gifts when they have to draw up documents. There are no written laws, nor are they literate, tradition and sound commonsense being their guiding principles. Serious crimes do not occur. In the event of an execution the case is referred to the Chinese authorities.

An annual tax of 23 horses is paid to the Titai at Kanchow and the tusy at Li Yuan receives privately 50 tjao of copper coins, a deer and $20-30$ hares a year. The value of the horses is paid in cash at the rate of 28 lan per horse and the sum is divided by the thumb according to the wealth of the population. The thumb complained of the arbitrariness and extortion of the Chinese. Quite recently 2 jais had put in an appearance, ostensilly on the instructions of the Shenguan at Fu-yeh (who has nothing to do with the Yögurs)
and tried to persuade him to give up some coal mines, for the exploitation of which the Yögurs received certain payments from the Chinese. They were situated in the Livenku (Li Yuan) gorge. A sum of 3-4 lan a year is paid for the right of working a mine. As he declined to agree, they repaired to the mine and told the Chinese to ignore the Yögurs and thenceforward to pay the money to the Chinese authorities.

I was unable to obtain any information either from the Thumb or from the lamas concerning the origin of the tribe. Formerly they had inhabited a place or a country in Kou wal (outside the wall), probably to the north, which was called *Tanguta* in Chinese and Sedje Hadje in their own language, and had moved very long ago to their present place of abode. When I mentioned that the Sarö Yögurs had come from Shidja Hadje, 45 days' journey to the W or SW, they said that they had come from the same place and that perhap it lay to the W or NW. They did not know where Tanguta lay, how far off, whether it was mountainous country or a plain. Nor did they know if they had been governed by their own princes, nor the names of any of their ancestors. Documents concerning their origin had been preserved by the military mandarin at Li Yuan, but the Dungans had burnt his yamen and the documents were probably destroyed. One of the documents was supposed to have stated that they had immigrated and adopted Chinese nationality in the time of the Emperor Gang si, another that they had come here and lived by robbery. They seemed to believe that they had settled here in the time of the Emperor Gang si, but they had no idea as to when he reigned. A couple of lamas maintained that they had immigrated in the time of the Emperor Shundji and had built the Kanglungsu monastery, when they arrived. The name Kanglungsu was inscribed over the entrance to the temple in Chinese characters, the same sign appearing as in the name of Gang si. The tribe had been far more numerous and had numbered over 3,000 tents. They had driven away another tribe called „Khu mouza hi fan» by the Chinese and "Sjamar» by the Tanguts. Their numbers had been reduced both by amalgamating with the Chinese element and by dying off. The population was still decreasing. Many of the women were childless and the women outnumbered the men considerably. There were about 3 children to a family, never more than 5 or 6 . They did not intermarry with the Chinese nor with the Tanguts nowadays. Formerly, however, they intermarried with the latter. The Thumb said he was ignorant of this. There are a great many lamas, as among the Kalmuks. There were said to be quite 100 of them. If a family has two or more sons, it is customary for one of them to become a lama. Weakly boys are also brought up to be lamas. They claim to be Mongols, but to belong to the same tribe as the Sarö Yögurs whom they consider to be "Tshentu" and whose name is not Sarö (yellow), but Qara (black) Yögurs. They believe that they immigrated at the same time and from the same Tanguta.

In case of death the corpse is carried within $3-7$ days into the mountains some distance from the tent and is left to be devoured by birds of prey. The eyes of the corpse are closed, but the limbs are not straightened. No importance is attached to the position of the body in regard to the points of the compass. Three days later the relatives go to see, if the corpse has been devoured by vultures, which proves that the deceased was a good man. If this is not the case, a lama is called upon to say prayers. The bodies of richer people are burnt


A Shera Togur woman.
on a bier of wood. No food is placed upon it and the body is naked, its head to the west. 'The lama only says prayers in the tent immediately after death has occurred. Formerly guests were entertained at a funeral, but this has been abolished under the influence of the lamas. The ashes are kneaded into a burkhun which is placed in a wooden box and buried.

Marriages are arranged by the parents. Girls are not betrothed until they reach the age of 15 . Men marry between the ages of 15 and 30 , girls between 17 and 30 . Widows do not marry again unless the husband has left no property, but widowers usually remarry. An only daughter does not marry. Wives are bought. To make the marriage agreement two men are sent to the girl's parents. They extol the great advantages of the proposed bridegroom and discuss the price of the girl and the size of her marriage portion. If an agreement is come to, tea, spirits and meat are offered. Prior to the betrothal the young couple can meet as often as they like, but subsequently they are not permitted to see each other until the wedding. The two spokesmen return after a time with the promised number of cows, sheep and horses, for the price is always paid in cattle. Now the bridegroom comes with them. All three are entertained as well as possible and the bridegroom is usually presented with a scarf by the parents of the bride. About a month later the bride's dowry is reads and the wedding ceremony is performed. Lamas are invited to say prayers in the homes of both bride and bridegroom. Accompanied by her mother and all the guests who have assembled and been entertained, the bride sets forth on horseback for her new home. Her hair is brushed at home and decorated with rings, clasps and buttons -- the tokens of a married woman. She wears the greater part of her dowry, the rest being brought with her. The dowry consists of clothing, hair ornaments and cattle according to her parents' means and in the case of rich weddings a suit of clothing for the bridegroom. The wedding

## A Shera Yögur woman

 nursing her child.
procession is met by all the guests assembled in the home of the bridegroom, both men and women. The bride is led into a separate tent, where she spends the night in the company of a woman The rest of the company is invited into the usual living tent, where the bride's father is invited later. Here everything is provided that the household can supply, tea with salt, milk, cream and butter, roasted flour, boiled meat (beef or mutton), lapsha, spirits etc. The festivities go on all night. There is some chorus singing, but no dancing. On the following morning the bride's dowry is handed over to the bridegroom. The young couple enter the general tent, where they kneel in front of the altar, and then the bridegroom alone kneels before his parents and all the older guests. The latter present him with small gifts. On the third day the young couple visit the bride's parents, when small gifts in the shape of spirits, scarves etc. are exchanged. No proof of virility is required of the bridegroom before the betrothal or marriage, nor is the efficacy of the marriage controlled after the wedding. In most cases the man has already known women, and it is not rare for the bride to have been initiated long before into the mysteries of marriage and to bring one or more children with her in addition to her dowry. Sometimes these are left with the wife's parents. Infidelity occurs occasionally after marriage, though only in secret. If the husband discovers it, he gives his wife a beating and the incident is closed. There is no divorce, but bigamy exists in the event of a childless marriage. Both wives live in the same tent. The women are often said to be childless. No herbs are used as a cure, only prayers. The woman is often as much as 8 years older than the man. Cousins do not marry, nor do uncles and aunts marry their nephews and nieces, brothers-in-law their sisters-in-law nor step-children their step-parents.

December 3oth. The clothing of the Yögurs consists of a sheepskin coat, short in itself and made still Camp at shorter by a scarf tied round the waist, so that the bagginess thus produced serves as a Kluadjek gol. pocket. At the neck is a low collar, faced with a piece of red or blue cloth which is often continued as an edging round the coat. The wealthier people cover their furs with dark blue cloth. To the home-woven scarf, which is wound round the waist a couple of times with the ends pulled through, so that they hang down at the back, they fasten a metal sheath with a knife and chopsticks and often a flint and other small objects, secured by a clasp. They do not wear shirts, but often a summer garment, the collar of which, cut and faced in the same way, protrudes from the open coat collar. Their dress, identical for both sexes, is completed by a pair of loosely-fitting trousers of blue Chinese cotton or leather, over which they often wear a pair of Chinese "hood-trousers" of the same material as the under ones, and Chinese top-boots, the legs of which are often lengthened with a piece of cloth and tied with a cord. The women are distinguished by their headdress and their way of doing their hair. The former, made of some kind of stiff canvas covered on the outside with white and below the brim with red cotton cloth, is in the shape of a slightly curved cylinder with a very low, narrow crown and wide, straight brim. It is tied loosely under the chin and is worn coquettishly very much on one side. Their hair is done in three plaits without any hair of "kutas» oxen being added. One plait hangs down the back and has a white bone button attached at the nape of the neck. The other two plaits are worn hanging over the breasts and are threaded through numbers of silver rings ornamented with enamel and stone, of Chinese manufacture. To the ends they fasten flattened copper rings and brooches with engraved designs, threaded on to two wide straps, the whole being finished off with enamel button-shaped ornaments sewn on to broad pieces of leather which reach nearly to the ground. The men wear Mongolian felt caps or fur caps of Chinese or Mongolian shape.

All the household articles and tools I saw were Chinese except the looms which were the same that are used by the Kalmuks and Kirghiz. There is no home industry except weaving and the making of coarse blankets of inferior quality. The cloth and scarves are coarse, but very good. In the monastery I also saw quite good, though very simple joinery work done with Chinese axes, planes and other tools. The knitting of stockings and basketwork are unknown. Weapons, knives and other metal objects are bought at Sining.

Their food is the same as that eaten by other nomadic tribes. It consists chiefly of tea with salt, butter, milk and cream, when obtainable, and roasted flour. On great occasions an animal is killed and soup is boiled. The meat is taken out and distributed and fine slices of beef and lapsha are then added to the soup. They use Chinese chopsticks; if none are available, they break a couple of chips from a log of wood. On the whole they eat decently, though they lick their cups carefully after emptying them. They do not distil Kalmuk milk brandy, but „dziun» is thought a great deal of and is consumed on great occasions by both men and women. The chief meal of the day is eaten in the evening, when the work of looking after the cattle is done. After the meal they sit in a ring round the fire in the middle of the tent and murmur prayers for quite half-an-hour in low tones. It is a very curious sight to watch them sitting in the semi-darkness, the women with their rakish hats

and glittering plaits, spinning thread, the men in leather caps and huge fur coats. lamas with cropped heads and clean-shaven faces, all muttering the same words over and over again, so it seemed, with the greatest solemnity.

Today the Thumb had a sheep slaughtered in my honour and arranged a feast with dziun and singing. The songs were sung alternately by two women and two young men in a low voice. The women sang much better than the men. While they sang, they clung close to each other, gazing into each other's eyes as though trying to guess what the next note would be. The tunes were beautiful and usually ended on a sad, long drawn-out note. From time to time one of the singers would hand a small cup of hot brandy to some member of the company with a polite and pretty bow and a movement of both hands. There seem to be no Yögur songs, but Mongolian songs are learnt in childhood and sung. On the whole I was surprised to see how gracefully they moved about in their awkward furs and boots. The meat and soup were served by three of the Thumb's servants, three young men, two Tanguts and a Yögur, and it was a pleasure to watch the polite and graceful manner in which they offered the cups and dishes and took them from the assembled guests.

The sun rises late in winter and so do the Yögurs. As soon as they are up, they make December tea in a big kettle and take it with roasted flour. Then the day's work begins. The cows are Camp at milked, snow is melted in a big kettle, cups and kettles are scoured with ashes, flour is Kluadjek ground, wood is chopped, the women busy themselves with the sheep. They walk carefully through the tightly packed flock, humming a snatch of song, with one or two lambs tucked under their arms, kissing and caressing them. The cattle are driven up the mourntain slopes, but all household duties go on unceasingly until the evening, when the sheep come home again and have to be attended to. It is only when this is done that they think
of dinner. They are quick at their work, talkative and merry. You hear no quarrelling or swearing, nor do you see any discontented looks. Their movements are slow, but this is probably due to their awkward boots and heavy furs, for you often see a man or woman running quickly and lightly down a stcep mountain side. After dinner, or rather, supper they say their prayers and then do some more scrubbing with ashes (without using water), talking and laughing until late at night. They sleep stark naked on a blanket spread on the ground, covering themselves with a blanket of felt and wool covered with homespun cloth and a fur coat or only with a fur.

The tents they live in are far less comfortable than the yurts of other nomadic tribes. They are 3-4 paces in diameter, but so low that you cannot stand upright in them. They are made of coarse homespun, greyish-white canvas with dark brown edges and are supported by poles, the two poles in the middle being joined by a crossbar. On the outside they have ropes that fasten them to a fence. This was the case, at any rate, with the tents I saw, which had a foundation of small logs, laid lengthwise, and caulked with manure. I was told that they did not take the foundations with them when they moved, but only used the canvas to cover the ground. At the top of the tent there is a long rectangular opening to allow the smoke to escape. A kettle is placed in the middle of the tent on some lumps of clay; facing the entrance there are a couple of Buddhas and some brass vessels on a low table and along the walls their very meagre collection of household utensils, blankets, saddles etc.

The Shera Yögurs are of medium height and not badly built. Those whom I measured had rather well-shaped hands and feet and thin wrists and ankles. There is nothing of the Kalmuks' coarse appearance about them. I saw no stout people, but some very thin ones. Their faces are neither exceptionally long and narrow nor short and broad. The cheekbones were slightly prominent in some cases. Very few had very prominent cheekbones and in most cases they were perfectly normal. Their mouths were normal, the lips being neither exceptionally thin nor thick. Their teeth were well shaped and beautiful. Their noses were usually straight and well shaped. A few individuals had broad, turned-up noses with, as it were, a sunken bridge. The distance between the eyes was normal, though, perhaps, slightly wide in the majority of cases, and the position of the eyes was normal. The corners of the eyes were slightly covered by the Mongolian fold. This peculiarity disappears entircly, or almost entirely, as they grow older. The colour of their eyes is black or dark, though with lighter shades. I did not see anyone with blue eyes. Their hair is black or very dark, in some cases curly. Both the children I saw had brown hair. I saw no bald people, but several who were very grey. Judging by the women I saw, their hair does not grow very thick. The men have thin beards, and judging by 12 measurements, there is practically no hair on their bodies.

The Yögurs are dirty, but who would not be, who had to spend the winter in a small, cold tent? It seemed to me that the household utensils were scrubbed more carefully than among the Kalmuks and I saw that the majority washed themselves, a thing that never occurred in my presence among the latter, even in summer. I did not see a single person spit. It is rare for any of the Yögurs to smoke, but they take snuff. About a dozen are said to be opium smokers.

The return journey was fixed for to-day, but had to be postponed owing to my feeling ill. January 1 We spent New Year's Day in teaching the Thumu to shoot, which was all the more rgo8. necessary as I had presented him with a Berdan rifle and 100 cartridges. He had no idea how to handle a rifle and closed both eyes when he had to fire.

The Yögurs seem to go in very little for shooting. The rifles they buy at Sining are of the usual type with a support in front and a lock with a wick. There is not much game in this district. You see nothing but kekliks and large vultures (their gravediggers) in large numbers. There are said to be hares and wolves, besides bears in the summer, but I heard no mention of tekä or kiyik, and the wild yak only occurs further south. I saw some wolf-traps. These were circular in shape with two strong springs placed opposite each other which made the two segmeris of the circle close forcibly by means of two running rings. They were placed over a piece of cloth sewn on to a branch bent into a circle of the same size. A peg fastened to the circumference was threaded through a loop in the centre of the circle, which kept the trap open until an animal stepped on to the cloth and made the peg fly out of the loop. I heard nothing of manly sports, and if they do go in for races or games, they were not so frequent or important as among the Kirghiz or Kalmuks. I was told that, when 3 or 4 Yögurs met, they raced each other sometimes, but there were no other games.

I was unable, too, to discover anything about their superstitions. They made out that they attached no importance to dreams. When I shot a vulture, they begged me not to bring it indoors and they carefully removed any scraps of meat near their tents. This was very natural, when you remembered that the vultures devour the bodies of their dead. During the fourth Chinese month they assembled for prayers at some of the praying sites in the mountains, consisting of stone cairns or heaps of poles. I could not obtain any details. At one of the heaps, erected in honour of the cattle god, prayers are offered up if there is disease among the cattle.

The Yögurs can multiply figures in their heads, but in doing complicated sums they use the beads of their rosaries. They do not use the Mongolian method of multiplying with their fingers. Their measures, weights and money are Chinese.

The women kneel in giving birth to a child and the husband is not present. The mother is assisted by other women, one of whom has usually had some experience as a midwife. The umbilical-cord is cut with a pair of scissors or a bit of pottery. The placenta is buried in the ground. In case of a laborious or delayed delivery a lama is called in to say prayers. They have no means of hastening the delivery. The newborn infant is washed daily and rubbed with butter for seven days. The mother keeps her bed for seven days and sleeps by herself for 20 or 30 days. She nurses the child for two years and occasionally for part of the third year. The child is wrapped in a blanket, but no board is used. Twins are rare and there is no superstition connected with their birth. It is said that no deformed children are born. There are no ceremonies on the occasion of the birth of a child. Its hair is cropped, when it is two or three years old, or on the birth of the next child. Sometimes it is cut at once in preparation for a Chinese pigtail, but often the whole head is shaven. The first teeth come when the child is eight months old. It loses its milk-teeth at
the age of $I_{1}$. When it reaches the age of 12 , the child is given a name chosen from his books by a lama.

The Yögurs made a considerably better impression on me than the Kalmuks and Torguts. It is easier to make yourself understood by them. They are quite lively and bright, often think they have grasped a half-formed sentence and interrupt you with an answer before you have had time to finish your question. They show great interest and easily understand the use of objects that they have not seen before. The Thumu had an almost phenomenal gift of recognising sounds in foreign languages. When I asked the names of various objects through my interpreter, he amused himself by giving them the same names that he heard me pronounce in Russian. Curiously enough, he pronounced them correctly in most cases without being put off by the long Chinese sentence which the interpreter frequently addressed to him. He was much amused by this joke and by my surprise, when he pronounced some difficult word. Occasionally he would preface the Yögur verb that I wanted to know, by my title nta jen», making up absurd sentences, such as wthe ta jen nurses his child» etc., which amused him immensely. In general they are very fond of joking.

Judging by the livestock I saw at the Thumu's, at the monastery and in neighbouring tents, it is good. The cattle consisted chiefly of yak cows, grey and black, either with or without horns. Their size varied very much, some being real prize-cattle. Their milk is thicker than that of ordinary cows. The sheep, I thought, were larger than in the Tian Shan mountains and had ordinary tails, not fat-tailed. The horses were very small many of them were knock-kneed. The dogs were chiefly of the Tangut breed, large, dark brown, long-haired, fine animals. I was unable to draw up any statistics concerning the livestock and the information I obtained was very unreliable. It seemed that they had suffered considerably in a material sense, especially in regard to their livestock, during the last Dungan revolt and had been unable to regain their former prosperity.

January 2nd, It was almost with feelings of regret that I parted to-day from my hospitable hosts 1908. and the little cottage embedded among the grassy hills. All the men had collected round The town of the horses to bid me farewell. One held my horse, another the stirrup, a third gave

Li Yuan. me a helping shove into the saddle, while a fourth waited on the other side to prevent my overbalancing. The ladies were conspicuous by their absence. As I rode past the flocks of sheep, I saw them busy at work. I reined in my horse and shouted a loud »tshuava» and "suja" (thanks and goodbye) which seemed to please them.

The gorge of the Kluadjek gol opened at a short distance from the Thumu's house into another, Mör gol. There were traces of water at the bottom, though now the gorge was dry. We followed it in a NNW and N direction. The gorge is very narrow and the grassy sides were fairly steep. A little higher up the surface of the rock was laid bare in most places. We travelled for a short distance between fairly high hills, but soon the hills on both sides became small. Some side-gorges with water channels, dry at present, debouched into the one we were traversing. After riding for 5 miles we took a NNE course. The water channel now grew more considerable and some patches of ice were visible. About $21 / 2$

miles beyond, we passed some coal mines on the left. Here the gorge went by the name of Talipin gol. Not quite two miles from this spot, at the mouth of a side-gorge on the left, stood a shed, where arbahs were filled with coal brought by donkeys from a mine in the vers narrow side-gorge already mentioned. The one we followed had grown considerably wider and the mountains on either side had become higher and steeper. After travelling for a mile, winding backwards and forwards mainly in a NW direction, we gained the large gorge of the Lansor or Neiman gol. Here there was an inn frequented by the men who transported the coal. The river flowed here in a $\mathbf{W}-\mathbf{E}$ direction in a main arm with many branches in a stony bed, $150-250$ fathoms wide. Picturesque, steep mountains towered on both sides. Those on the left bank are red terracotta in colour. For a distance of about $31 / 2$ miles the river described a curve, open to the north, until it adopted a NE course which it followed for $2 \mathrm{I} / 2$ miles. The mountains on either side were stecp, those on the left perpendicular to an appreciable height. About $2 / 3$ of a mile further on we reached the little town of Li Yuan. During this last stretch the course of the river was ENE and it was enclosed by no more than two appreciable rises in the gravelly ground. The mountains had receded to a distance, but on the other side of the town, rather more to the NE, the bed of the river again seemed to be shut in by mountains of respectable size that had drawn closer together.

Li Yuan is a small place on the left bank of the river, almost in the bed itself. It consists of a small impanj, the interior of which bore clear traces of the damage done by the Dungans who were said to have sacked it on three occasions. The yamen itself, inhabited by the head of the garrison, a tusy, is nothing but a ruin. Outside the wall of the impanj there was an earthwork that enclosed the few houses in the place. The tusy called on me immediately after my arrival. He had prepared rooms for me in his ruined yamen, but Hashim, who had been sent on in advance, had preferred a Government inn in the outer
town, presumably for fear of being given pork. The amiable old fellow sent me fodder, coal and even a delicious dinner conveyed in 6 cups on a curious tray that kept the cups hot. The dinner, reported to have been prepared by the old man personally, deserves mention in view of a dish of sharks' fins and cabbage, which I found excellent. He told me that the district, inhabited at present by the Shera Yögurs, had previously been populated by the Hung mouza (red-haired) or Huang Fan, whose reputation for robbery was bad. They had been exterminated by order of the Bogdykhan. As the land remained uninhabited and the number of wild animals increased rapidly, the Dzian Dziun at Ili had, at the request of the Titai at Kanchow, despatched 6 tchi of Huang Fan there from the neighbourhood of Urumchi. These 6 tchi, now reduced to about 1,000 inhabitants, were governed by a senior thumu, 6 thumus and 6 futhumus (inferior thumus) and were under the supervision of the tusy in Li Yuan. These people had immigrated during the reign of the Emperor Yun djyng. They still formed 6 tchi and could, in case of need, be employed for military service. They paid taxes, because they had been given cattle gratis when they immigrated.

Li Yuan, which means "pear orchard" and apparently justifies its name, is surrounded by small cultivated plots between the mountains which had withdrawn from the bed of the river. There were said to be about 100 houses in the place. Wheat, tchinkho, tchumiza, millet, peas, beans, huma (an oil plant) and opium are grown. Wheat yields a $6-7$ fold crop.

Fanuary 4th. Exceptional politeness seems to be a characteristic of the mandarins at Li Yuan. Potanin Kanchow. was struck by it when he passed this place about 20 years ago, and I was quite overcome by it during my visit. As I was about to mount my horse at $7.30 \mathrm{a} . \mathrm{m}$. yesterday, an officer came running up to me and announced that the tusy was on his way. There was nothing for it but to receive the amiable, but stone-deaf old fellow. After a hearty farewell from my new "peng ju" (friend) I started rather late to the accompaniment of guns fired by some soldiers in uniform.

The road, which follows the left bank of the river, goes in a W and WSW direction across a tilled area towards a gateway formed by the mountains which had again become steep and beautiful and had drawn closer to each other. About 2 miles from the town we passed a picturesque little temple on the left, situated on a ledge high up on the wall of rock. About $2 / 3$ of a mile beyond we came to the foot of the mountain, approximately at the place where it juts out towards the river, which we crossed. The Longsor gol flows in 3 arms here, their width being respectively 2,2 and 3 fathoms. The greatest depth was about 0.3 m . The flat, stony bottom of the river lies deep between steep ledges of ground and is about 200 fathoms wide. On the opposite side we came to a small temple and continued in a westerly direction to the top of the mountain, a mile distant. The river scemed to form a curve round the foot of the mountain we had left and was soon hidden from view by the slope of the bank. We proceeded in a SW direction and after riding $31 / 2$ miles we reached the familiar village of Kan-chun-pao. For the whole distance the road passed through a cultivated and sparsely populated neighbourhood.

From this place we took the same road as on the way from Kanchow. On reaching the barren strip, we took a slightly different course and crossed the river slightly further
north than on the former occasion. The depth was a little greater and the water came slightly above the horses' bellies. The level of the water is said to be extremely tricky and the river is often difficult, if not impossible, to cross. We reached Kanchow almost from due west. The ground was similar, flat, thickly covered with thin trees and fields at different levels. It is dominated the whole way by the fortress, although houses, ariqs, sunken roads etc., afford slight cover.

I obtained the following further information from the Yögurs who accompanied me in order to fetch the cartridges from Kanchow that I had presented to the Thumu. The Shera Yögurs are divided approximately into the following \#branches»: Toqshu with 5 families, Ehrgero with 20, Sultus with 8-9, Turgush 2, Kargos io-i5, Arlat 2, Kong 2-3, Lantchak 30-35, Sockå 1, Ghongrott, 3 Temyrt or Temurtchin 2, Jaglakyr 4, Tchungsa 6, Tchangban 20-25, Rkomdjuk 4, Glan 2, Kyrgys 7-8, and Andjan, to which the Thumu belongs. Tuman and Uirot are common to the Shera and Sarö (Qara) Yögurs, the Shera Yögurs having not more than 2 families in the Tuman mbranch». The Sarö Yögurs also have Minack, Patan and Pegeshi, from the last of which their thumu (or thumun?) comes. This division is of no significance, however, except as a kind of relationship within the different "branches". For instance, individuals belonging to the same \#brancho are not permitted to marry each other. The administrative division is said to be as follows:

| Chinese | Yögur |
| :--- | :--- |
| Uga dja | or Päjat tavyn otock; |
| Pako dja | " Neiman |
| Loga dja | "Kurke |
| Sygo ma dja | " Dörven kolma " |
|  | (Durben kolma) |
| Shyugo ma dja | "Shketok or Harben tabyn golma |
| Shyigo ma dja | "Janga or Harban Niga golma |
| Pako ma dja | "Neiman golma otock |
| Montai dja | "Nan sö |

The Sarö Yögurs are divided as follows:
Jaglakr otock with the temple Tchang ku su or Päjran
Khurungut » " " " Longtcha.

The Chinese names are derived from the number of horses delivered in the form of taxes, the Yögur names from rivers or the name of the district.

The temple at Ma-chuang-tzu does not seem to be included, nor possibly the temple in the village of Yunghei-tzu, in the above list. - The Ta thumu (the principal thumu) is also said to supervise the Qara (Sarö) Yögurs, although they pay their taxes direct to the officer at Kunghitzu (?). It is curious that the Shera Yögurs assert that their name is Qara, not Sarö, and that the same name occurs in Potanin's description of his travels, whereas they distinctly told me that they were Sarö Yögurs. My Yögur guide told me that they had

I ta thumu, 5 thumus and 5 futhumus, which seems more likely than the statement of the Chinese mandarin. All the thumus belong to the same "branch», among the Shera Yögurs the Andjan »branch», among the Sarö Yögurs to the Pegeshi „branch». The number of Sarö Yögurs is said to be about 100 tja. The percentage of pregnancy among Yögur horses is only supposed to amount to $50 \%$. The place from which they immigrated, is called both Tanguta and Shilagu. The founder of their tribe was called Khor Geser rdjalu (djavu according to Potanin), but the guide could not tell me whether he had been their khan The tracks of Geser's horse are said to exist on a wall of rock near the Tangut monastery of Matisy, 120 li S of Kanchow. A hollowed stone, in which Geser's dog was given its meals, is also supposed to lie there. - There are said to be ruins, ascribed by the Yögurs to the "Hung mouza" tribe, W of the left mountain side on the river Longsor, about 7 miles SW of Li Yuan at a place called "Sar Oron» and about 15 li S of the Ta thumu's cottage. At both places there are merely traces of dwellings, which were numerous at the latter place. The Ta thumu mentioned that the only Europeans who had, to his knowledge, visited their country, were two elderly men, one with a red beard and the other with a black one. They had come from the south about twenty years ago in the company of a woman who appeared to be in command. A Yögur had gone north with them and had not returned. He evidently referred to Potanin and Skassi. Dr Stein passed through part of their country recently.

January 6th. Three days have had to be spent in various work, repairing broken cases, packing and Kanchow. labelling the things I have bought etc. Such unproductive labour takes up a great deal of time and poisons the life of an unfortunate traveller.

The wall of the Kanchow fortress encloses a space of fully 1 sq. mile. The main streets, which are comparatively wide, connect the 4 gates facing the different points of the compass. They cross each other under an enormous kulo tower. There are 8 other streets, rather irregular, small and not completely built. The most striking thing in the town are large swamps overgrown with reeds, $2-2$ i/2 fathoms high, which encroach very much on the space in the town. They are particularly large in the N and NE parts of the town. There are as many as 40 temples, some of them of considerable size. The oldest and most remarkable one stands in the SW part of the town, not far from the S gate. The fairly large main building, which is two-storeyed, is occupied entirely by Sju-lei-fo, a gigantic Buddha, lying on his right side with one hand behind his head. Either of his enormous feet is certainly as tall as I am. At his head stands an idol of Buddha, several fathoms in height, that looks like a goddess and is named Tiu tcho niang niang. At his feet is an equally tall Tien huang shang ti, well proportioned and rather graceful in spite of its great size. The cornice above the sleeping giant is decorated with a large number of huge idols, only their heads and shoulders being visible, while the two gable walls are occupied by 10 images of the same imposing size as the two standing goddesses. At the top there is a gallery with more images, mural paintings defaced and blackened by age, etc. It was difficult, as it always is in Chinese temples, to take any photographs owing to the uneven light and lack of space. One of the back courts of the temple is decorated with a large conical clay column.


The nSju lei fon temple is said to have been built in the time of the Emperor T"ang. The missionaries assured me that it was older than the town itself. A wery badly preserved memorial stone belongs to the time of the Emperor Wang li. The outer wall of the main building is embellished with a couple of large bas-reliefs executed in tiles baked in artistic shapes and then put together. Their dull colours and gilding make them beautiful. Near the N gate there is a large temple, though of more recent date. There is a lama temple close to the SW corner, where both Chinese and Tanguts serve as lamas.

The other buildings in the town are quite undistinguished; large, gnarled trees here and there improve the look of the place. There are a great number of shops. Their total is given as 2,355 and I am inclined to consider this correct, for the main streets form an uninterrupted bazaar of more or less well stocked shops. Very small suburbs have grown up outside the four gates, the one in the N being at some distance from the wall. They are said to contain another 132 shops. About 50 are said to possess a working capital of over 5,000 lan and in over 10,000 . There are branches of two Chinese banking houses, but no restaurants. On the other hand there are innumerable undertakers who hammer, plane and work away as if they expected an epidemic. A Tchantu from Khotan sells Russian cotton goods to the value of $70-80,000$ lan annually according to his own statement. Goods are reported to be imported from Peiping to the value of $1,500,000$ lan a year and are distributed to places in the neighbourhood. Oil, brandy, rice and lapsha are exported to Mongolia, to the north and east. Grain is only sold in very small quantities. Wool from the mountains in the south is not sold to Kanchow, but is bought on the spot by agents of business houses in Eastern China or in Nabo, a little place in an ESE or SE direction. It is said that about $2,000,000$ djin of wool are exported annually in this way and a con-


## KANCHOW

Kanchow is surrounded by a wall of baked bricks, 6 fathoms high, with a crenellated parapet. The gates are protected by large wall projections. The other wall projections are of no considerable size. Small tower-shaped buildings of clay are placed on all of them. The gates to the $W$ and $S$ are protected by a double wall projection. The outer archway is 16 yds deep; from it to the middle archway 120 yds ; the latter is 20 yds deep. From the middle gate to the inner one 50 yds and the depth of the inner archway is 40 yds . The walls are well preserved; gates of massive timber with iron fittings. Outside the wall the ruins of the parapet of a protected space are visible in some places. No fosse, but branches of the Ch'ih ho flow round the town. Impassable morasses, 15-20 fathoms in width in some places, have formed in the $N$, partly in the $S$ and especially in the $E$. Outside the town there is an open plain, $11 / 2-2$ miles wide, both in the $N$ and $E$, untilled and uninhabited, with large deposits of salt. In the NW and $W$ there is a tilled area with many scattered houses and a few trees. A similar one in the $S$, but lying considerably lower. - An old, well preserved wall, 3-3 i/2 fathoms high, enclosing a small space, runs $S$ of the wall of the SW corner. Outside the $W, S$ and $E$ gates and a short distance from the $N$ gate there are small groups of houses. SE of the SE corner another group of houses of some importance. - The space inside the wall is divided into four equal parts by two densely populated main streets that cross under a kulo tower. The other 8 streets run,
siderable quantity of camel's-hair. The only industries I noticed were distilleries and papermills. The paper, dried on the walls of all the houses in the N part of the town, is dark brown, but of fairly good quality. A special article produced here is a kind of dry mleafo made of chopped and boiled apple, which does not taste bad. The Kanchow Shenguan district is irrigated by no fewer than 56 arms of the Ch'ih-ho and ariqs. The distribution of the water is entrusted to 2 nlao nöng. 60 or 70 villages are grouped round these waterchannels. There is a Shang-ja in every village, covering 8 mlungguansw. These lungguan districts are as follows:


Over 30,000 tan are levied annually in taxes.

In the missionaries' geography book, which should be the official Chinese version, the population of the town is given as 60,000 . The local missionary does not think that it is above 25,000 which seems a low figure in comparison with Suchow. According to the information I received from the yamen there are 6,000 tja here, excluding shopowners (?), or with them about 8,450 . Allowing 3 adults to a tja, the result is 25,000 , and allowing 3 children, we get a town population of 75,000 and approximately the same rural population. The former figure should, perhaps, be slightly reduced; it is impossible to judge the latter on a hasty visit. The Chinese statistics are very unreliable. A census is taken annually, if I am not mistaken, but it is done by men sent out from the yamen, who call at the houses in town, enquire of the first person they come across how many residents there are, and record the answers without checking them in any way. The population is entirely Chinese, excepting ${ }_{5}$ Dungan families in the S suburb.

Wheat, millet, peas, tchumiza, huma, tchinkho, rice, fruit and a little opium are grown. Wheat yields a 10 fold, millet an $8-9$ fold, tchumiza and peas a 10 fold, tchinkho and

[^7]huma an 8-9 fold and rice a 10 fold crop. - The quantity of livestock may be estimated at slightly over 2,000 sheep in the larger lunguan districts and about 1800 in the smaller ones. The richer houses possess $2-4$ oxen and $3-4$ horses; poorer ones 2 oxen and a couple of donkeys. The rural population employs oxen exclusively as draught animals. The horses are very short and not of good breed, but thickset and strong. There are, however, quite a number of poorly developed and long-legged horses. Some merchants in the town are said to have about 1,500 camels.

Kanchow forms the junction between the highway from the province of Sinkiang via Lanchow to Peiping and a road from Sining over the mountains, generally used by Mongolians making a pilgrimage to Gumbum. The road to Uliasutai is said to go via Chinta. A caravan route leads across the mountains in the S to Khungeitzu and Suchow and probably on to Tun-huang. Another connects Kanchow with the route via Bautu to Kuku Khoto. The district is intersected by many arbah roads that connect all the villages with each other and with the villages in the adjacent districts. There must be a road closer to the foot of the Nanshan mountains connecting Kanchow with Suchow, but I was unable to obtain information as to its existence. This is quite natural, however, for arbah traffic for long distances passes along the highway, and if there is a road further south, it is only used for journeys between places lying closer to each other.

Gold is said to be obtained by Dungans about 3 days' journey S of Kanchow. A tax (over 200 lan in gold annually) is paid to the Titai. There is coal in the Rin zung ko gorge in the mountains to the N and NE of Kanchow about 3 days' journey from the town on the road to Tchen Fang (shen district subordinated to Lianchow). The coal there is said to be larger and better than in the Li Yuan district.

January $7^{\text {th }}$. Town of J Tung lo. we then passed a row of scattered houses and temples on the left, behind which the wall of the fortress was visible. On the right there was marshy ground, through which a river flowed. It came from the S , kept to the road for a few minutes and then turned northward and passed at a short distance $E$ of the town. Between it and the road we saw the ruins of a high, old wall. Just before crossing the river, about 4 fathoms wide, by a solid bridge of logs we passed a larger group of houses with a massive stone gate, topped by a pagoda, under which the road went. On the left there was low-lying ground, presumably marshy, on which we only saw a couple of houses. Its W edge extended to the town wall and its S edge was only separated from the road by a few scattered houses. The ground over which the road led us was cultivated throughout, there being a number of houses, many of them large, and scattered trees. The fields were well cared for. With its numerous ariqs the neighbourhood seemed fertile.
$5 \mathrm{I} / 2$ miles from the town we crossed the Hsiao Sa ho, a broad river, which flows here in a direction of $200^{\circ}$ in rather a low-lying bed. It is said to rise occasionally, so that traffic is stopped for 2 or 3 days. $2 / 3$ of a mile beyond stood a group of houses belonging to Ehr-shih-li-pu, a large village of several hundred "tja». After another mile or so we came to
the 'Ta Sa ho, which is quite 200 fathoms wide and flows in a direction of $170^{\circ}$ in a perlectly flat bed with little water. A barren stretch of sand begins on the opposite bank, extending about $21 / 2$ miles to the $\mathrm{S}, \mathrm{E}$ and N . In the S and N the plain is bounded by a cultivated strip with single houses and trees. At an interval of barely $2 / 3$ of a mile we crossed two small, flat river beds, probably arms of the same Ta Sa ho. The shifting sand, with its slight dunes, ceases $E$ of the second of these river beds and the plain becomes grassy with large deposits of salt. $21 / 2$ miles from the Ta Sa ho we came to tilled land again and about $\mathrm{I} / 3$ of a mile from there we passed the village of Tientanpu, containing about 50 houses. The district we now passed through was cultivated and sparsely populated.

2 miles E of Tientanpu lies the village of Kucheng-tzu with about 100 houses. The road led through the village, which was enclosed by a fortress wall. E of it a barren plain of löss begins, the surface forming mounds, heaps and cones of different sizes. On the left of the road we could see the wide bed of the river Shantan ho, covered with ice. 2 I/2 miles from the latter village the village of Chia-tzu-tung with about 40 houses was visible on the other side of the river. The ground to the $\mathbf{N}$ of the river drops considerably from the fairly high Kheli shan mountains, about $21 / 2$ miles off, towards the river. There are a few single large houses visible further E of Chia-tzu-tung near the river. The southern bank is entirely uncultivated. Soon we reached the bank of the river, where the ground is very sandy and there are many small stones. N of the houses on the northern bank of the river we could see the Great Chinese Wall, badly damaged by wind and rain at this part. Three or four tuntai towers went in a northerly direction towards a gorge in the mountains, indicating the existence of a road used either now or formerly. The road leads to a gorge in the Lung thou mountains (He li shan) and through it to the Tcheng Fan hsien district, about 7 days' journey from Tung lo in a NE direction. Gold is said to have been washed formerly 2 days' journey from the beginning of the gorge in the same direction, but the washing has been abandoned owing to the shortage of water. About $31 / 2$ miles from Chia-tzu-tung there were ruins of houses along the road. Two long ridge-like rises in the ground, approximately in a $\mathrm{S}-\mathrm{N}$ direction, touched the road at their northern points. The barren ground that had extended for about 8 miles came to an end at the top of the second rise and the neighbourhood became cultivated again. The little town of Tunglo, surrounded by earthworks, and the seat of the mandarin of the district of the same name, stood I mile further on.

The Chinese calculate the distance covered to-day at 70 li. I made it $22-23$ miles. The road was good with the exception of the $2 \mathrm{I} / 2$ miles of sandy ground. The river crossings might prevent traffic for 2 or 3 days. The Tung lo district is divided into 7 pa , two large ones lying near the mountains in the $S$. Those in the vicinity of the town contain 800 tja , while the two southern ones represent 2,000 by themselves. 6,700 to 7,000 tan of grain are levied annually in taxes. The town, which is small, is said to contain a couple of hundred houses, $30-40$ shops and 4 sarais. - Wheat, millet, tchumiza and some opium are grown, besides huma and mustard in the mountains in the S . The crop in the vicinity of the town is $9-10$ fold; in the south $7-8$ fold. - Snow falls between the roth and 2nd
months, but seldom remains lying except in crevices. There is a good deal of rain between the 3 rd and 8 th months. Buran occur from the SW in spring and summer.

January 8th. The road continues eastward, or rather SE, over cultivated ground, which seems Hin Kou sparsely populated, but the large number of "ja" in the villages indicates the reverse. village. On the left flowed the Shantan ho, hidden at times by the ground rising between the low land and the river. On the other side of the river there was a line of houses with occasional gaps. Beyond them was the Great Chinese Wall, from which the ground ascended steeply to the mountains which the local people called Lung Thou shan. The ground on the right was flat and cultivated, slightly uneven at times. Further $E$ the Nanshan mountains with a smaller group of hills stretched northward and joined the Lung Thou shan. The character of the neighbourhood did not change throughout the day. The only variation consisted of frequent villages and an occasional uncultivated space, often covered with very low grass.

After so li you get to San-shih-li-pu or Shih-li-pu according to what town you come from. 5 li further on lies Tatung-miao with 70 houses and a temple placed on a high tuntai tower. Another 5 li beyond lies Ehr-shih-li-pu with 80 houses. About 5 li from it we came to Chi-shui-tzu sui with 60 houses at the northern extremity of a long, ridge-like eminence coming from the S . Shih-li-pu, a small village of 20 houses, lies some distance E of it, and io li further on the town of Shantan. Just before it we crossed the frozen river of the same name. Shantan is the principal place of a Shenguan district of the same name that begins in the W at the Tatung-miao and ends in the E at the Ting-chiang-miao. In the $S$ it extends to the mountains and probably some distance into them. It is divided $i^{\text {nt }}$ the following "pa":


10,050 tan are levied annually in taxes.
In the town there are $380 \mathrm{tja}, 80$ shops and 7 sarais, and in the suburbs 260 tja and about 200 shops (?). Wheat, millet, tchumiza, tchinkho and opium are grown. The crop is $8-9$ fold. The district is rich in coal which is said to be present in the mountains both in the N and in the SW and S in the form of both anthracite and coal. - There is a garrison of I "tchyping" in of $80-100$ men and a shoo of cavalry of the matui of the Titai in Kanchow.

For a short time we had the Ghantanho on the right of the road on the other side of the town, and then the road finally left the river, which flows from the NW. - We passed in turn the villages of Shih-li-pu with 50 houses, Ehr-shih-li-pu with 60 and San-shih-li-pu with 30 . yo li from the last we reached our goal for the day, Hin Kou with $35^{\circ}$ houses. The last bit of the road was slightly stony, but otherwise it was excellent, broad
and level. There was a great deal of traffic, one procession of arbahs succeeding another. - Wheat, peas, tchinkho, tchumiza and opium are grown. The crop is 4-5 fold. Snow falls between the 9 th and ard months, but seldom lies. There is rain between the $4^{\text {th }}$ and 8th months. Burans from the W are frequent and severe in summer and autumn.

The ground to the E of the village of $\mathrm{H} \sin \mathrm{Kou}$ was uncultivated and lay in very slight, long undulations. The greater part of it was grassy. The soil became slightly stony and January the ground rose evenly, but slowly, towards the small group of mountains coming from village. the S , which later intersected the road. 25 li from Hin Kou lay the little village of Peng-cheng-pu with about 20 tja . It was surrounded by ruins of deserted houses. 15 li beyond we came to another ruined village, Hsia ku. There were 50 houses there and it had the appearance of having been bombarded recently. The Dungans sacked it on several occasons, the last time during a minor local revolt, in 1895 if I am not mistaken. After the great Dungan revolt had been quelled about 30 years ago, bands of Dungans from the south sacked the neighbourhood during a couple of local risings. The neighbourhood of Hsia mu contains a lot of saltpetre which is refined by the local people and sold to the extent of $3-4,000$ din annually to the Titai at Kanchow (sulphur is bought at Suchow) and to manufacturers of Chinese fireworks. It is extracted from the ground, strained and boiled in large pots. At Hsia ku there is a tusy in command of $I$ in of 39 men and 3 officers, one of whom is stationed with a detachment at the Chin tchia mao.

From Hsia ku, which lies on very stony ground at the foot of the mountain already mentioned, the road runs eastward along a stony gorge. The mountain, which has no immediate connection with the Nanshan chain, but rises from the lower part of its northern slope, was soon passed, though on the left it extended further east in the same direction as the road. The ruins of the Chinese Wall, completely collapsed at this place, lie along its foot. We continued across the lower slope of the Nanshan mountains, constantly ascending eastward.

A little east of the mountain we met the Roman Catholic missionary Heiremans from Kanchow and his colleague van Ostade, the oldest Roman Catholic missionary in Kan Su , a splendid jovial fellow, more like an old sergeant than a man of God. They persuaded me to turn aside and visit his country house, about 40 li to the west. Our road ran across the same slope, intersected by numerous water-channels and led us much nearer to the Nanshan mountains than I had been. The little village of Hsytja-chuang and its pretty church lie embedded among small hills, one of which is decorated with a clay wall crowned with a large cross. It is said to have been erected by the Christians during one of the Dungan revolts as a defence. Van Ostade's parish consists of $2-300$ Christians and 3 small churches. The community was founded about 150 years ago by a Chinese Christian who came here from Shui-chuan. Van Ostade has been in Kan Cu since 1878. I had hoped to secure some old Chinese songs with his help, but was disappointed and my jaunt of about 40 li was rather unnecessary in this cold weather. The only thing I discovered in the house of my jovial host was that my thermometer had gone wrong and that the tape of my second camera had snapped. My thermometer indicated $+3.5^{\circ} \mathbf{R}$., while
my host's two had dropped to -1 $1 / 2$ and $31 / 2^{\circ} \mathrm{C}$. and I felt thoroughly cold. - Buran from the NW are common here in the spring. Snow falls between the th or roth and and month, but does not lie.

January roth.
Chin tchia
mao.

After spending a night in an excellent room and being as cold there as in a Chinese inn, despite an improvised stove made of an inverted kerosene tank, I resumed my journey, provided with two fine loaves of bread and many blessings pronounced in curious Flemish French. The weather was splendid, and we had a wonderful view from the slope of the hill northward over the plain, lying bare and brownish-yellow, surrounded by mountains with a few villages scattered over it. On reaching the spot where we turned off from the highway yesterday, we went on for about $\mathrm{I}_{5}$ li to the east, constantly ascending.

The road reaches its highest point at Chin tchia mao, the ground descending to the east. The temperature also changes. According to van Ostade there is a considerable difference in the climate W and E of Chin tchia mao, it being much milder in the latter quarter. There was no tilled ground up here. Snow falls occasionally in the 5th and 6th months, but in normal conditions between the 8th and 4 th. Heavy storms prevent its lying. There are storms almost daily, mostly from the W , but also frequently from the $S$ and E . There is rain between the $5^{\text {th }}$ and 7 th months, but not often. This little place has in tia. The population sells various things to travellers and lives by breeding cattle and refining saltpetre as at Hsia ku. You see shepherd boys looking after their flocks of some 700 sheep and about 50 horses on the grassy slopes. They protect themselves from the wind with a long, white blanket, tied round their necks with twine, which gives them a picturesque appearance. Herds of gazelles, amounting to several hundred, also graze here. They tempted me to sacrifice a day for shooting.

January fth. Wandering backwards and forwards among grassy slopes intersected by numerous Shui-Chuantau village. very low-lying ravines, and over the most prominent mountains, we only advanced 30 li to the east today. There were really very many gazelles here. I saw a herd of 28 and another of about the same number, besides several smaller ones. Here, however, these shy animals are much more cautious than in the neighbourhood of Tun-huang, nor does the ground afford such good opportunities of getting close to them. Early in the day I shot one with a pair of beautiful black antlers bent with the points towards each other, but then we wandered about for hours, climbing up and down deep, ravine-like valleys, without getting within range. Finally both Lukanin and I lost patience and began to shoot at $800-1,000$ paces and even further. Of course, our bombardment produced no result. We stuck to the southern mountains all the time and it was only later that I heard that there is more game in the northern ones.

The road remained in view, more or less, all the time and was good, crossing firm, falling ground, though rather stony in some places. During our ride across the slope we passed several hollows, in which coal was being mined. There were others, where coal had been searched for in vain. 3-4 li before Shui-Chuan-tzu the mountains in the $S$ turn sharply and adopt a S or SSW direction, leaving room for a wide valley coming from
the south, which is bounded far to the south by the same Nanshan mountain that rises in two considerably higher ridges and connects the group of mountains we had followed so far with another projecting group that bounded the valley in the SE and partly in the E. Straight in front of us, behind Shui-Chuan-tzu, ie., E of it, there was a smaller mountain which seemed to be connected with the mountains in the N , from which we were now some distance. Between it and the projecting group of the Nanshan mountains a rather lower valley extended eastward, as though it formed the continuation of the broad valley already mentioned, that came from the S or SSW. This was tilled and a few large houses or small villages were scattered over its bare and very stony bottom. Wheat, tchinkho and peas are grown and yield a $5-6$ fold crop.

Shui-Chuan-tzu was a small place of about 40 houses. The walls were falling to ruins and beyond them the remains of many houses could be seen, destroyed during the Taiping revolt. -- There is snow from the 9 th -roth to the $4^{\text {th }}$ month, but it does not lie. Rain between the $4^{\text {th }}-5^{\text {th }}$ and 8 th months, though seldom. Burans are frequent (mostly in spring and autumn) from the W, S and E. 25 men representing 1 in under the commend of 1 shubai formed the garrison here.

[^8]a mile higher up, flows past it in the same direction as the Bei li ho. Immediately afterwards we crossed 4 branches of the Bei li ho, the largest being 10 fathoms wide, the others less broad. Depth about 0.35 m , bottom firm with small stones, current swift. During heavy rain it occasionally stops traffic for a couple of days. A little village, Shui mo Kuan, of 10 tja with extensive ruins of destroyed houses, lies on the opposite bank. Close to it stand the ruins of the impanj wall of the village of Hsitche, also sacked during the Dungan revolt. Our course took us away from the river which flows to the ENE, while we travelled ESE. On the left of the road the ground was flat and low, extending to the river. On the right the ground ascended to a slight ledge. Both sides were cultivated and sparsely populated. There were only a few single trees near the houses.

With the exception of the beds of the rivers the road had so far been only slightly stony, but now it became exceedingly so. Though the surface of the ground was almost entirely free from stones, the sunken road was full of large blocks that might have been rolled into it. Our goal for the day, the town of Yung Chang, lay 20 li from Shui mo Kuan and 60 li from our starting-point. N of it there is a gap in the mountain to make room for the bed of the river. In this gap there are two tall conical clay columns surrounded by fairly large groups of houses. They might be taken for factories with chimneys and workmen's dwellings. The side of the mountain on the left bank of the river is decorated with about twenty small clay buildings, in various shades of red, if, indeed, these clay huts can be called a decoration. There is said to be a monastery there.

Yung Chang is the seat of the Shenguan of the district and his assistant, the prison governor. In the W the district extends to the village of H sin-Cheng-tzu, 70 li distant from here and slightly S of the highway; in the E to Pa chenging, 80 li distant and likewise S of the highway; in the N to the village of Ning Yuan about 190 li distant. The areas in the E and W are controlled by a lungguan each, while those in the N and S are managed by a Shang-ja each. Besides there is a so-called »lao yen» in every village.

In the W 5 pa with 13 villages and 860 tja 500 oxen, 400 horses, 500 donkeys, 3,000 sheep and a yearly crop of $11,600 \mathrm{tan}$;

(including the village of Ning Yuan in the mountains).
Wheat, barley, tchinkho, millet (grows badly), huma and peas are grown in the district. In the areas near the river the crop is said to be 8 fold; further off $5-6$ fold. The annual taxes amount to $5,375 \mathrm{tan}$. Originally the taxes amounted to 7,000 tan, but were reduced owing to poor harvests.

The town covers almost $2 / 3$ of a square mile. A kulo tower stands in the centre, its great size the more striking since the other buildings in the town are mere hovels, even
more miserable than usual. The total population is said to amount to 470 tja , excluding the owners of the 340 shops. All these shops are very small. The fortress wall is of the usual height and appearance and is built in a regular square with gates on the $\mathrm{E}, \mathrm{W}, \mathrm{N}$ and S . The E gate has a double protective wall, somewhat similar to that at Kanchow. The wall dominates the surrounding plain, which is almost bare. There is only a small ruined suburb in the $E$. The town, which is the seat of a Hsietai, is connected by a very little used mountain road with Da tun on the Kanchow-Sining road and by another with Ning Yuan, N of the mountains to the N . This latter is also said to be used very little. Snow falls between the 9th and $4^{\text {th }}$ months, but does not remain on the ground. Rain between the $5^{\text {th }}$ and 8th months. Northerly burans are common in spring and autumn.

The weather was dull, cloudy and cold and the road, if anything, still drearier. E of the town the ground rises very slightly. An insignificant spur of the mountains projects on the N , just behind the suburb, but then the N mountains take a course that diverges very much from that of the road. At first the rather stony ground was cultivated and there were a few isolated houses not far from the road, but the tilled patches grow rarer and disappeared altogether after $30-40 \mathrm{li}$. Gradually fewer and fewer houses were visible and finally for a distance of several dozen li they vanished and were replaced by whole villages of ruins from the time of the Dungan revolt. At intervals of about io li we passed the villages of Shih-li-pu, Ehr-shih-li-pu, San-shih-li-pu, and Sy-shih-li-pu. A house in the third of them was the only one inhabited, all the rest being heaps of gravel and ruined walls. There were many deserted houses, too, between the villages.

The road was strewn with stones the whole way, but in some places, especially in the neighbourhood of the ruined villages, it became one mass of gravel and stones. Occasionally we crossed belts of gravel that looked like dry river beds. Near Shih-li-pu we reached the highest point, situated on a slight eminence that projected in a NE direction from the mountains in the $S$. After this the road descended slightly and 60 li from the town we came to the village of Papa with a few inhabited houses. Immediately to the $E$ of it we crossed the flat, dry and stony branches of the river Sha ho, of which there were quite ten at short intervals. During heavy rain it is said to be impossible to cross for a couple of days at a time. Between the branches of the river the ground is also very stony. io li from the village of Papa we passed the ruins of a fairly large village, Sha ho pu (or tcheng $=$ town, as the local people seem to call it). The desolate waste of gravel, intersected by stony river beds, all in a direction of $250^{\circ}-260^{\circ}$, continues E of the village. Tilled land only begins again a short distance to the W of the village of Fyn lo pu. The mountains in the N had almost disappeared. In the far distance we could see the outlines of lower hills, but those in the $S$ were only a few li from the road. We saw two fairly large gorges, in front of the easterly one of which there was a small hill, the northern point of which extended to the $E$ of $F y n$ lo pu. To the $E$ of the village the ground seemed to rise again towards a ridge-like eminence, running north, like the one we had recently passed.

Fyn lo pu consists of about 30 tja , including its small impanj. The main street is formed of a dozen small shops and some sarais. A detachment of 25 men under the command of
a tindjy and a tiendzung is stationed in the village. There are 120 houses in the vicinity belonging to the village. Wheat, peas, tchumiza, millet, huma and opium are grown. The crop is 5-6 fold. - Snow from the Ioth to the 3 rd month, but it does not lie. Rain between the $4^{\text {th }}$ and 8 th -9 th months. Westerly burans are common during spring and winter. The distance covered to-day was 90 li . I made it 31 miles.

On this side of Kanchow traffic was lively. We met dozens of arbahs, caravans of mules and donkeys daily and occasionally caravans of camels. To-day we met my arbah drivers from Kucheng to Suchow. They were already making the return journey from Lanchow with fresh loads. As smiling and brisk as ever, they plodded along the stony road by the side of their heavily laden carts. For a couple of days we had been accompanied by 18 mules laden with opium on their way from Kanchow via Lianchow to Tajuan and thence by rail to Mukden. Since yesterday we have been followed by a number of camels with oil from Yung Chang to Lianchow. The Chinese use very curious pack-saddles. A convex board that covers the animal's sides and is slightly raised above its backbone, is fastened on to it with a breast-strap and harness round its hind quarters. A prettily embroidered piece of felt is thrown across its back. Under the saddle they place several blankets of the same shape and size. The pack is tied on to a frame made of two parallel, curved poles adapted to the convex saddle-board. This frame is lifted up and down without the use of a rope. The curious part is that there are no girths. These saddles are used on mountain roads. The bridle and saddle-straps are usually decorated with red tassels, bright embroidery etc. Small bells are hung round the animal's neck and it all looks very neat.

January 14th. Again nothing but gravel and sand. The road took us up a ridge-like rise coming
Lianchow. from the mountains in the $S$. so li from the village we passed the ruins of another village. The land on both sides of the road was cultivated and lonely houses were visible occasionally. We crossed the broad, gravelly bed of the Tie pa ho two or three li from the ruined village. There was a derelict village of the same name on its eastern edge. 30 li from Fyn lo pu we reached the village of Sy-shih-li-pu with a few inhabited houses. 20 li beyond we came to Ehr-shih-li-pu and another so li further on to Itcheng tung. The road which began to descend about Sy-shih-li-pu, was a mass of gravel. On either side, in most places, there was level, loose earth without stones or with comparatively few, but the Chinese insist on driving or riding along hollows, strewn with stones, that look as if they werc river beds, though it is not clear where they come from or whither they go. No sooner have you left one than you come to another. We often passed large patches of ice. The road wound in a thousand turnings to avoid these slippery places as much as possible. We had an extensive view from the height of Sy-shih-li-pu. The ground to the east drops to a valley that goes north, and then rises again towards another ridge-like spur of the mountains. On this slope we could see a dark line as straight as if drawn with a ruler and with many turret-like pagodas. This at last was Lianchow. On the left, northward, a large inhabited and cultivated valley was visible through the misty grey. In the $S$ the view was often limited by a slight rise in the ground. Houses were only visible occasionally at great
distances from each other. About 2 miles before reaching Lianchow we crossed a last river bed and then gradually began to ascend a gentle slope of nothing but gravel. Small heaps of gravel, half in the shape of dunes, half sugar-loaves, were thickly scattered over it, all with a little window at the bottom. These were Chinese burial mounds with an opening to allow the air to circulate.

At Kanchow I was struck by the bogs and morasses that almost penetrated into the January ${ }^{21}$ house I was living in; at Lianchow it was the gravel and stones that left an indelible impres- Lianchow. sion on me. The town is about $11 / 3$ mile from $W$ to $E$ and $2 / 3$ of a mile from $N$ to $S$, and is enclosed on the $\mathrm{S}, \mathrm{W}$ and halfway from the N by a huge Chinese cemetery, its innumerable small stone cairns, packed tightly close to each other, making the most desolate impression imaginable. Beyond this sea of stones there are single houses surrounded by some trees or temples embedded in a shady grove, from which the graceful lines of the roofs stand out beautifully against the background of mountains or sky. They look like small oases in a desert of stone. The mountains in the S are a few dozen li distant. To the N there is an open plain with a slight drop northward. The land seems to be more tilled and the houses more numerous in that direction. In the immediate vicinity of the town, to the S and especially to the N , there are several larger groups of temple buildings, built high up and looking picturesque among the surrounding trees. From these a belt of trees and gardens runs along a narrow river bed to the NE corner of the town and to the N wall of the suburb of Tung-kuan. Small groups of houses have formed near the 3 other gates of the town, but outside the E gate there is quite a little town-quarter enclosed by its own wall, though very dilapidated. It is called Tung-kuan. Here Dungans are allowed to live and here you find the biggest number of sarais, some of them quitc good. The town is like all the other larger Chinese towns, at any rate in Kan Su. Two big streets, as straight as arrows, connect the four gates of the town and divide the space into four equal parts. At the point where they cross, the customary kulo tower is replaced by 4 large wooden gates which form a square with openings towards the four points of the compass. The principal sight worth mentioning is an old stone with an inscription said to be in the Sisia language. It stands in the NE part of the town at the foot of two very tall and similar, pillar-like towers, visible at a distance of many miles from Lianchow. The stone is in a very bad condition. On its front is carved the inscription in the Sisia language, on the back another in Chinese. The Sisia letters might be taken for Chinese characters, but Chinese cannot read them. When Bonin was here, he was said not to have been able to photograph it or take an impression of it, but an impression is said to have been taken by the Chinese authorities at the request of a French ambassador at Peiping. We tried in vain for two days. It was so cold that everything froze before we could get the cloth into the hollows. Finally I had all the hollows painted with white paint and photographed the stone to-day after working all night. It is possible that mistakes may have occurred, especially as the work had to be done at night by candle light. Opposite this stone there are two others with inscriptions. These stones seemed to be in an unusually good state of preservation, and on making enquiries I found that at any rate one of them had only been


## LIANCHOW

Lianchow is surrounded by a wall, 6-7 fathoms high, of baked bricks, provided with a crenellated parapet. Outside the wall there is a space, 3 fathoms wide, protected by a dilapidated clay wall, $11 / 2-2$ fathoms high. The fosse that encloses the protected space is 4 fathoms wide and $11 / 2-2$ fathoms deep. The 4 gates of the town are protected by rectangular wall projections of about $80 \times 100$ paces. Excepting a circular and 2 semicircular projections in the $N$ wall and a semicircular one in the $S$ wall, the other wall projections are of no great size and do not flank the fosse. The three semicircular projections are of about the same size as the gate projection. The round one forms a portion projecting about 40 yds from the wall about 75 yds in diameter. It is crowned by a clay tower with 3 gun embrasures of not particularly solid construction, in size about 7 fathoms in two storeys. The NE corner of the wall is situated on a rise in the ground. The archways are of approximately the same size as at Kanchow. Outside the gates another gate is built into the wall of the protected space, which is 3 fathoms high here, so that the number of entrance gates is increased to 3 . In the $E$ there is a town quarter "Tung-kuan", surrounded by a separate, neglected wall, about 3 fathoms high. Small suburbs have sprung up outside the N and S sliding gates; outside the W gate there are only a couple of groups of temples. The space inside the wall is densely populated, but fairly regularly intersected by comparatively straight streets. The yamens of the Djentai and Taotai are in the centre of either half of the town. The pagodas over the entrance gates, the tower over the circular wall and especially 2 column-shaped towers with tall temple towers near the NE corner are good landmarks.

The stone in the temple at Lianchow with an inscription in the Sisia language.

done a few years ago, though the inscription referred to some repairs done in the time of the Emperor T'ang. Another temple has achieved some fame owing to the fact that one of its towers, if seen through a crack in a door, appears to be upside down. During these six days I was unable to examine this miracle, but this is not so surprising

The centre of the town is indicated by $f$ old wooden gates facing the four points of the compans. In the W, NW. $S$ and SE there is a desolate and large, bare cemetery .... a stony plain thickly strewn with imall conical burial mounds. In the $W$ it is $11 / 2-2$ miles wide and is intersected in places by dry waterchannels lying at a depth of about a fathom. In the $S$ it occupies a strip of ground about $2 / 3$ of a mile in wideh. beyond which a strip wit land, strewn with houses surrounded by trees, leads to a broad. dry river bed of gravel. which encloses the town from the $E$ in a large semicircle, separating it from the Manchurian fortress. In the NW an impanj with the mobile garrison of the town. The land in the N is densely populated. A deeplying. ravine-like hollow with a small water channel leads to the NE corner. Between it and the river a line of trees and gardens extending to the $N$ wall of「ung-kuan. Flat ground in the E and SE. -. The wall of the Manchurian fortress is 5 fathoms high, of baked bricks. Wooden pagodas on gates and corners. On the middle wall projection small clay turtets, on the others small clay houses. No external protected space. Fosse 3 fathoms deep and 1 fathom wide -... missing in some places. The wall projections are insignificant. Outer gate 15 , inner gate 32 yds and fromgate togate fu vds. Outside the wall flat ground, tilled, and densely populated in the E, NE and NW. but with few trees. Less populated in the sif.. In the $W$ a river bed of gravel with a ledge a couple of fathoms in depth. -... Drawn by the author.

as the fact that the English missionary Belcher, who has spent 15 years here, has not scen this curiosity.

The Manchurian fortress stands a couple of miles NE of the town, separated from it by the dry, gravelly bed of the Tangtiapa ho. In the spring it becomes a large river, though only for a short time. The commandant of the fortress politely replied to the card I had sent him, as well as the other mandarins, by making a personal call the day after my arrival. At his invitation I was present on the following day at some military manocurres improvised in my honour. At the appointed time we arrived at the Manchurian fortress, scarcely $2 / 3$ of a square mile in size. A guard of honour of half-a-dozen men was drawn up just behind the entrance gate in front of a kind of guard-house. The men were short and had no military bearing. They took a good deal of trouble to present arms, so that the foreigners should be impressed. The narrow main street is intersected on the way to the middle of the fortress, i.e., a ride of about 5 minutes on horseback by no less than 4 very narrow lanes. At each corner there were two sentinel boxes with a sentinel cach in my honour, armed with rifles with cocks, which were to be presented.

The Tutung Jy met us in full dress and soon after our arrival an old officer with a blue button requested him with a "tching darin" to proceed to the parade-ground. We mounted our horses. The Jy darin rode a powerful little grey animal that was led by his men at such a pace that his tchinping, preceding him in two lines, had to advance at the double. There were more sentry-boxes, guards, salutes etc. at every corner. The parade-ground occupied the NE corner of the fortress. A pretty pagoda, with its back to the E wall, was decorated with proverbs and verses in gilt characters on a bluc and red ground. 500 men were drawn up in two lines, occupying one side of the parade-ground from the entrance gate to the pagoda. The officers stood in front of the front line. Heralded by monotonous trumpet blowing and shouldering of arms by the rather distant troops, the Tutung rode up to the pagoda, where his first anxiety was to provide me and himself with tea. We took our seats in a couple of red-upholstered armchairs far inside the pagoda, surrounded

## Manchurian troops drilling

at Lianchow.
by obliging Chinese, all with officers' buttons on their red-fringed headgear. An elderly man with two gold stripes on his sleeve and the button of a lower officer took a flag from a stand in the pagoda, dropped on his knee, raising the flag above his shoulder in front of the Tutung and strode into the middle of the ground, where a dozen drummers and musicians had been placed. At a signal with the flag and a blast of music the line broke and the detachment started moving in column of half-companies ( 46 men each) with a theatrical and very slow step. It marched a couple of times approximately in a square round the band, and the column then drew up along the wall opposite the pagoda. At a signal from the band the line was reformed and at another signal the men shouldered arms.

The parade was over and was to be followed by target shooting. The main thing seemed to be to put up a picturesque, large tent with red armchairs, tea etc. When this was done, the shooting began. 30 men fired 120 shots at a range of 200 paces at a round target, about I m in diameter. There were not more than 20 hits, possibly owing to the bad condition of their old rifles. The Tutung assured me that he always scored 300 hits in 500 shots. The men looked smaller than the Manchurians I had seen at Kucheng. Their carriage left a good deal to be desired, but they formed line fairly well; they lifted their feet absurdly high and slowly in marching; their discipline was good - absolute silence in the ranks. The officers marched more or less where they liked. The rifles were muzzleloaders with cocks, uniforms black. They carried a large apron-shaped pocket in front for powder and bullets.

After the drill I photographed the Tutung and 2 elderly Sielings ( $=$ galdai?) in his yamen. He invited them to sit in his room. - The Tutung was 49 and seemed active and pleasant. Judging by his elegant manners, fine clothes and various pieces of furniture in the yamen, considered valuable by the Chinese, he must have belonged to a wealthy and spoilt family.

There are said to be 6,000 people in the fortress (including women and children), or according to another statement 1,600 tja. Only 2,000 are in the pay of the Bogdykhan.


The armed force consists of 10 tehi, two of which are composed of Mongols, who came here during the time of the Emperor Tja tching. The Manchus call them Khalatchien Mongols. Each tchi consists of 5 tshalans of 25 men, cach with a fang jy, and is commanded by a soling and a junior officer called hsiao tchi hsiao. There is one galdai to every 5 tchi. i tchi $=125$ men ( 200 ?). In the event of a man dying, the best marksman is given his place. Formerly the test was made with bows and arrows, but now rifles are used. For the last 3 years there has been an instructor from Bejan here, trained according to the German system. Only 500 men are drilled daily from 6 to 7 a.m. During the 6th, $12^{\prime} h$ and half the 1 st month the men are free. Target practice is done twice a month. The powder (about t ,ooo djin yearly) is obtained from Lanchow. The Manchurian garrison has been stationed here since the days of the Emperor Tshenglung, when the fortress was built. During the Taiping revolt the Dungans failed to capture it.

On the following day I called on the Roman Catholic bishop of Northern Kan Su, Mgr. Otio. The missionary Kerkhof, who was stationed here, kindly acted as my guide. The journey of 25 li to the residence of the bishop in the little village of Shungshu Chuan, W of the town, was very pleasant in the company of a man I could converse with, rather a rare occurrence in Central Asia. My companion had spent 3 or 4 years in China and had studied the Tibetan language lately. He seemed to hope that he would be transferred to work among the Tanguts and intended to occupy himself, too, with ethnography, anthropology, mapping etc. On the way to the village we met the children of the Chinese school of the episcopal see. The New Year's holidays had just begun and the youngsters were taking a walk with the schoolmaster, a young missionary of the name of Florent Mortier, who gave me a hearty welcome. The boys gazed with great interest on a Christian who was not wearing a pigtail and Chinese dress. Bishop Otto was a man of 50 of medium

height who did not look his age and was as lively, active and brisk as a man of $30 . \mathrm{He}$ was exceedingly kind and hospitable. He had been a missionary in Mongolia for many years, a country he seemed to know very well, and had then been appointed to the bishopric of Kan Su. This year Kan Su had been divided into two bishoprics, Mgr. Otto retaining the northern part. He took a great interest in scientific research, especially geography, and had himself done some mapping or drawn maps in accordance with the work of other missionaries, principally of the communications of Kan Su. With his permission I copied a large map and he kindly helped me to write the names with the troublesome transcriptions of Chinese. He constantly had to consult books or maps, and it was always Father Mortier, apparently the librarian or at any rate a bookworm, who jumped up from table and fetched them. The dinner that the bishop ordered in my honour was as simple as possible. There were close on a dozen Roman Catholic missionaries in the refectory, some from other parishes. The features of two, who had only lately arrived from Europe, were not yet stamped by the loneliness of Cientral Asia. I fancy all of them were Flemish. It was very curious to see this collection of Europeans with their phlegmatic Flemish features, dressed in Chinese clothes and wearing pigtails and small black caps, sitting there puffing away placidly at their big Dutch pipes. The time passed all too quickly in talking and joking and I had to hurry away to reach the town gates before they shut; in every Chinese town, large or small, the gates are closed at the approach of darkness.

I only had time for a cursory glance at the mission buildings. The church was pretty, a mixture of Gothic and Chinese styles. A building that went by the name of „La Province», inhabited by missionaries, I believe, displayed a good deal of taste. The rest were simply Chinese houses with slight improvements. Everything was very tidy and kept in good condition, but extremely simple and Spartan. Bishop Otto told me that for the maintenance of his


The church at Shungshuc Chan with the Rev. Selosso on the steps.
see, consisting of over 20 parishes with their churches, schools etc., he was not allowed more than 21,000 francs a year. Such a small budget demanded a great deal of self-sacrifice on the part of the Roman Catholic fathers, nor can anyone who has seen the conditions of life among them at close quarters, full of privations, speak of them with anything but profound respect.

Lanchow is the headquarters of a Taotai with two fud districts: Kanchow, which includes Chang eh (Kanchow), Kaotai, Tung lo and Shantan hsien, and Wu yeh ting and Lienchow, which inclucles $U$ wai (Lianchow), Hung chang, Chang fan and Kulang hsien. There are about 5,370 t ja and 870 shops ( 13 large ones) in the town and about $145 \mathrm{tja}, 80$ shops and II sarais in the suburbs. In point of population it is considered the second largest town in Kan Su. There was lively traffic in the streets and the displays in many of the shops looked pretty, at any rate now just before the Chinese New Year. A kind of adhesive plaster and an excellent kind of glue were among the special products of Lianchow. The former was famous throughout China and was eagerly bought by all Chinese who passed through. In addition to the ordinary handicrafts, coarse pottery and paper were manufactured. The paper was of two sorts, grey paper known as "matcheu" and made of wheaten straw and »malien» (iris), and white paper known as mao thou tcheu» and made of the leaves of the »malien» plant, reminiscent of iris. Other articles of export consist of "courge» seed, "chanvre", indigo and opium, the latter being sold in comparatively large quantities to Peiping and Tajuan. Trade in wool from the surrounding mountains goes principally through Young Chang and only in small quantities through Lianchow. There are no grain exports worth mentioning, the supply being consumed locally. Russian goods, such as cloth, a little sugar, copper and tin basins and even sewing machines, are sold in large quan-

tities in the Chinese shops. I was told they came from Ili (Urumchi) and Kashgar as well as Uliasutai. Silk and satin cloth is imported in large quantities from Human and ShuiChuan. There are saddle rugs from Khotan, cotton and raisins from Turfan and Hami and other goods from Chinese Turkestan, matches, cigarettes, toilet articles, some cotton cloth and other small articles from Japan, spices and chinaware from Hing-anfu and Tientsin. Last year a merchant from Kashgar brought a consignment of Russian goods on 300 camels via Kanchow. Tanguts are met with occasionally in the streets.

The inhabitants were displeased with their present Shenguan, because he had introduced some taxes that they considered illegal. A careless census of the population is made annually, and on this basis a tax of 50 tshok is imposed on each inhabitant. Donkeys laden with coal are not allowed to enter the town for the sake of cleanliness, but the difficulty vanishes, if so tchok per donkey is forthcoming. Decently dressed policemen and a school opened recently are among the latest reforms. Routes for camel caravans connect Lianchow with Uliasutai (about 60 days), Hami (about $4^{0}$ days), Kweihwa ting and Tajuan. There is also lively traffic with camel caravans on the highway.

The U wai district is divided into the following 7 tchy:
I. Ting tchy ( 6 o pa) near town



Street life in Lianchou.

Each pa has its Shang-ja, subordinated to 6 lungguans ( 1 and 2 thy are controlled by a lungguan). Wheat, tchinkho, peas, huma and opium (a good deal in some parts) and some millet are grown. The crop is 6 fold (in a good harvest 8), in some parts only $3-4$ fold. The best soil is in the north. The taxes are said to amount to 48,000 tan for the district, although in recent years only $3^{8, o o o ~ h a v e ~ b e e n ~ l e v i e d . ~-~ A ~ D j e n t a i, ~ a n ~ i n f i r m ~}$ man of 70 has his headquarters in the town. During my stay he was replaced by one of 50 odd who was stronger, indeed, but just as uneducated. His district included the Hsietais at Yung Chang and Ping fan, altogether 35 battalions.

January 22nd. It was a foggy day when we started this morning. The thermometer stood at $-8^{\circ} \mathbf{R}$, Chingpienyi but when we had ridden for about an hour, the sun broke through the clouds and it grew village. so warm that we felt inclined to throw off our furs.

The ground E of the town was almost as stony as on the W . Close to the gate of the suburb we crossed the wide gravel bed of the Yungtiapa ho. The road ran SE and led for $2-3$ miles through cultivated country with scattered houses, but practically no trees. Here again the road crossed a gravel bed coming from the SSE, about $1 / 3$ of a mile wide. A third of a mile beyond we rode across two gravel beds lying next to each other, about a mile in width. The village of San-shih-li-pu with $30-40$ houses lay $1 / 3$ of a mile further on. Several imns, in which cups of steaming lapsha were served, indicated that this was a popular place of refreshment. For a couple of miles we proceeded over very stony tilled land; then again we came to a gravel bed, about $2 / 3$ of a mile wide. A mile or two beyond we came 10 the village of Tahöje with about 30 houses. For a couple of hours we rode over similar flat ground, often very stony though tilled, and submerged during part of the year. We passed the village of Hotingpu and a mile or two beyond Lupatuntzu, both small. 2 or 3 miles 10 the SE lay the little village of Chilipo, and 2 miles beyond we reached

our camping place for the night, the village of Chingpienyi, surrounded by a very dilapidated high clay wall. The space inside it was converted during the Dungan revolt into a mass of gravel, from which only two or three new houses had sprung up since. There were some sarais and shops outside the E and W gates. During the day we had drawn much closer to the mountains in the S. Good coal, mined on the spot, is used for heating. Wheat, peas, tchumiza, millet, huma, tchinkho and some opium are grown here. The land yields an average $5-6$ fold crop. Snow falls between the soth and and months, but does not remain on the ground. Rain is rare and falls between the 3 rd and 9 th months. There are severe northerly burans in the spring. Distance 70 Ji; I made it $20-21$ miles.

In the night I was awakened by monotonous long bugle calls. It turned out that 250 recruits were on their way to Urumchi, and, as usual in the Chinese army, they were Kulang. marching by night.

The road further east has a distinct SSE, at times S direction. The ground was level and tilled, but very sparsely populated, and trees werc rare even in the neighbourhood of the houses. We passed the first village in $21 / 2$ miles. It contained about 30 houses and was called Yangfanpu. The village of Tatung lay about $2 \mathrm{I} / 2$ miles beyond, numbering about 50 houses. It contained a small temple built on the top of a cuntai tower erected on some rising ground. We had got much nearer to the mountains which seemed to form a large curve, open to the north. The nearer hills were of no great size, but beyond them we could see the back of a higher, snow-clad chain. On the other side of Tatung the ground became more uneven and the loose soil was intersected in various directions by a great many ravinelike hollows, $2-4$ fathoms deep. The road often led for several miles along one of these hollows. They were so narrow that donkeys meeting our arbahs had to turn back. There was just sufficient room for an arbah and the axles often scraped the sides. I could not
imagine what happened, when two carts met each other. These corridors often have many turnings, so that it is impossible to see one end from the other.

About 5 miles from Tatung the road passed through a big village, Santapu, of about 260 houses, surrounded by a wall. Here, as in other villages we had passed, there were many indications of the destruction wrought by the Dungans. About 5 miles beyond we passed another little village, Hsiao Chiao pu, that had suffered badly, and after covering 60 li in all we reached the town of Kulang, a small place situated on a slope that descended sharply to the E towards a river bed. Some detached houses could be seen on the E slope, also the travelling companion who had deserted us at Shui-Chuan-tzu, the ruined Chinese Wall. At this time of the year the chill of the morning, which was quite perceptible, gives way about 10 or il a.m. 10 spring weather. The ice thawed along the road and the streets of the little town were excusably dirty. Another detachment of recruits, also numbering 250 men, had occupied all the sarais, so that I had some difficulty in finding shelter for my men and horses. The men looked very young, many of them more like children. They had been recruited by the Kung darin on behalf of the Governor of the province of Sinkiang. The men from Kan Su and Si ang were poorly built and rather below than above medium height. They were marching to the NW in complete lack of order. 'They had no instructors from Chihli, like the detachment I saw at Suchow, and like the latter they seemed to travel unwillingly, for here, too, there had been several cases of desertion. Kulang is the seat of the mandarin of the district of the same name and his principal assistant, the "puting" or prison governor.

The district is divided into 4 tchy and a tchuan with 5 lungguans each. The annual taxes amount to 5,772 tan.

1. Peitchuantchy in the $N$ up to the village 7 pa - $-4,106$ tja 74,58 o tan per year of Santapu
2. Tuting tchy starting about 60 li to the E and extending to Tumentzu and Tatsing

$$
\begin{aligned}
9 "- & 2,145 \text { " } 30,407 " \geqslant " \\
& (500 \text { prosperous })
\end{aligned}
$$

3. Huangyangchuan in the SE on the other side of the mountains
--"
4. Hsian tehy to the W
5. $\ldots \ldots \ldots \ldots \ldots$
6. Nansan tchy to the S
$\ldots \ldots \ldots \ldots \ldots$

The amount of livestock may be reckoned at 3-4 horses, 5-10 head of cattle and 2,300 sheep per tja among the prosperous; $1 / 2-1$ horse, and 2 head of cattle among the rest; a few sheep and $\mathrm{I}-2$ donkeys. Wheat, tchinkho and huma are grown, besides peas and millet in the eastern part of the district. The land yields a $6-7$ fold crop, in the immediate vicinity of the town only $3-4$ fold. The population of the town consists of about 350 tja with 170 shops and 11 sarais. The trade done is insignificant. The garrison, nominally i in, only amounts to 25 men under the command of a pazung. - An arbah road connects Kulang with Tatsing about 150 li distant. Another road
goes over the latter place from Lanchow to Lanchow. Sung i she which is on this road (between Tatsing and Lanchow) is also connected by a road with Kulang, but to the west of Kulang there is aid to be no road leading south over the mountains.

The soldiers left during the night. I was awakened at 12.30 by constant whistling January 2 and the sound of voices. This was the signal for departure which proceeded very quietly Lung how without any shouting or yelling. I started soon after 7 abm. It was cloudy and chilly, village. and the little town looked still more uninviting in the grey of dawn. It lies at the $\mathbf{E}$ fool of a small, grassy mountain projecting northward. Two suburbs have grown up close to its two gates, their combined size being equal to that of the town. It has no significance in the way of defence. The whole town is open to fire from the hills in the W . The gorge, at the mouth of which it lies, can be avoided on the $W$ by a road connecting Lianchow with Ngannien ing (further south) and in the E by the road from Lanchow to Tatsing and Lanchow.

Just S of Kulang we came to the steep slope on the left bank of the river Kulang hsien ho. The river, covered with ice, wound through a valley, about 200 fathoms wide, between fairly steep, grassy mountains. Its width was about 5 fathoms. The road stuck to the left bank of the river, either crossing a small open space or creeping a short way up the slope of the mountain. In the latter places galleries, as wide as the wheels of an arbah, have been built and the road is quite passable, though the wheels at times run along bare rock and some of the ascents, and especially descents, are very steep and impose a severe strain on the animals. The slopes of the bank often descend perpendicularly from a considerable height. They are so steep and the valley is so narrow that practically no use is made of the stony ground. A few miserable dwellings and a heap of ruins alone are visible along the road. The remains of the Great Wall run along the opposite bank, often at intervals of several miles. There is grass on the mountains the whole way. It is quite rare to see a bare, grey patch of rock.

A mile or two from Kulang we passed two houses called 'Tingdia veitzu, and 4-5 miles further on some houses called Tchalutuntzu. Here I found a good many pheasants and shot 4 . About $2 / 3$ of a mile beyond we came to Guan 1 i mao, all these villages containing two or three houses. Here the road divided, one branch going over Huang Yang chan to Sung shan on the Lianchow-Lanchow road. The gorge grew wider here and separated into two valleys, divided from each other by a wide triangle with sloping, grassy mountains. The river Kulang hsien ho comes from the SE and the river Lung know ho from the S or SSW. We followed the latter, which flowed through a valley $2 / 3$ of a mile broad in some places. The mountains were lower here and most of the slopes less steep. About $4^{1 / 2-5}$ miles from Ehr-shih-li-pu lie the ruins of a large village, Heisungi, in which a couple of houses were inhabited. 45 li from Kulang we reached the village of Lung kowpu, the hovels in which reminded me of the inns in my travels in Kouwai. I made the distance for the day ${ }_{15}-16$ miles. It is difficult to do more with loads on the arbahs in view of the stony, rough and very hilly road.

During the whole of our journey we kept meeting young soldiers. The majority walked
in pairs or singly at a considerable distance from the others. The great majority had no equipment beyond the clothes they wore. A few of fortune's favourites balanced straw hats with enormous embroidered brims, blue umbrellas, boxes and other luxuries on spring. boards. The men, who looked weak, were of medium height or shorter. At noon fine snow began to fall. The grass had been burnt in many places, probably by the soldiers who had warmed themselves for a short time on the march.

At Lung kowpu snow falls between the 9 th and $4^{\text {th }}$ months and occasionally remains on the ground. There is much rain between the fth and 8th months. There are no buran, but north winds are common in spring. Wheat, peas, a kind of small beans and tchinkho are grown. The crop is $4-.5$ fold.

January 25th. Ta-chaikow village.

The road today went on along the same valley, the character of which was similar to that towards the end of yesterday's journey. A patch of field was visible here and there and a few trees at the bottom of the valley; the mountains were not high and their slopes not particularly step. After travelling 5 li we passed a group of ruins with a couple of inhabited houses called You Yuan mao. At a distance of 3 li beyond lies Jufong thedza, also with only $2-3$ houses. Soon afterwards the valley became much broader. Nan yuan lies approximately in the middle of a triangular valley, 2/3-1 square mile, surrounded by gentle slopes. Here our road joined a more westerly one from Lianchow and one from Sining. The small bazaar, consisting of about 20 houses, is surrounded by considerable ruins. In the south the valley is bounded by a series of grassy hills, beyond which, at some distance to the S , rise the spiky peaks of a chain of beautiful granite mountains. The road, which had gone in a SSW direction, now led us SSE up the hills to the S. The ascent of the slopes was not steep, but long. It was with difficulty that the poor arbah horses clambered up to the $U$ shoo ling pass after frequent, long rests. The hill, up which the road ran, was about on a level with the surrounding hills. The view to the N and S was fairly extensive and beautiful over two large valleys and the mountains enclosing them. The higher chain of mountains that we had caught sight of earlier, was now clearly visible to the SW and SSW. Its direction seemed to be NW -SE and it presented a fine appearance among the lowering, thick clouds. The pass lies 30 li from Lung kowpu. - The road took us down it in a SSE direction along a valley with gentle slopes which, after about 8 li , ended in the valley, about $11 / 2$ miles wide, of the river Chung lang ho. Here there was a small dilapidated impanj with a garrison of a so-called in under the command of a juti. On the other side of the river bed, about 200 - 150 fathoms wide, lies a village that bears the same name as the impanj, Chenchiangyi. The river, flowing WNW-ESE, was frozen over with the exception of a channel of inconsiderable depth and breadth. At times it separated into several branches, at others it combined into a large surface of clear ice. The Great Wall of China, like ourselves, crossed over to the right bank of the river. A branch of it goes south up the mountains, another continues close to the road between the latter and the river. The road had been good throughout and now became excellent. The banks of the river were cultivated in places and groups of houses could be seen on both with many ruins. 22 li from the very considerable village of Chenchianyi we passed Ta-chai-

kow of about the same size and io li further on Shiherkow. The valley was bounded in the N and S by low, terrace-like, grassy hills. 50 li from the crossing of the river and 90 li (about 30 miles) from Lung kowpu we reached the village of Chukowyi, our goal for this day's journey. It consists of 240 houses and a small bazaar with 3 slightly larger shops. A small impanj was occupied by 40 men under the command of a tusy. Mustard is grown here principally, but also wheat, peas, tchinkho and oats. The land yields a $6-7$ fold crop. Snow between the 9 th and $4^{\text {th }}$ months, which sometimes remains lying. A good deal of rain between the 5 th and 8 th months. Burans are common in winter and spring; they are also known to occur in autumn, mostly from the north. - This village was also flooded with recruits and we had to fight as though for our lives to secure a hut. There are said to be Dungans here, but in very small numbers. They try to hide their nationality. The recruits were between 20 and 30 years of age, most of them being about 20 . The officers alone come from Urumchi. Non-commissioned officers are appointed from among the recruits.

We continued, as during the latter part of yesterday, in an ESE direction. About 5 li January. from Chukowyi we crossed a tributary river coming from the SW. 5 li bevond we came Pingfan. to the small village of Shui chuan. The river altered its course, describing a large curve open to the SW. The road ran in a SE direction. 5 li further on we passed a small group of houses, Jin va san, and 3 li beyond it a group of ruins. We had now cut across a rather larger open, tilled patch lying in this river bend. The river flows on to the south, greatly compressed between larger mountains that cross it approximately in a $\mathrm{W}-\mathrm{S}$ direction. The valley is not more than $\mathrm{I} / 3$ of a mile wide. At this place the Great Wall crosses to the opposite bank at the bend of the river. 3 li from the last group of ruins we passed another with a couple of inhabited houses, Ehr-shih-li kei pei, and i li beyond we reached the village of Vu chang pu. It consisted of small groups of houses scattered along the river for a distance of about 10 li. Here the direction of the road was pronouncedly S. $3^{2}$ li

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from Chukowyi the road divides on to both banks of the river. We took the one that crossed to the left bank and was supposed to be more level. A little further on the right-hand road also led across the river and joined ours. The course of the river and of our road was now SE, occasionally SSE. 8 li beyond lies the village of Nushengyi of 20 houses on the right bank and a post commanded by a pazung, and 5 li further on the village of Tungu van on the left bank. Both are insignificant. Here the valley of the river grows much wider and the mountains, especially those on the left, are lower.

50 li from Chukowyi we crossed a tributary river coming from the NNE. A small impanj stood at the top of its left bank, dominating the bed of the river, but dominated in turn by the slightly higher right bank of the same tributary. On the other side of the impanj there was a small village, Huanghunlopu, of $10-15$ houses that looked more than usually small and poor. On the opposite bank of the river a clump of trees was visible. 'The river valley was now quite $11 / 2$, possibly 2 miles wide and was cultivated as far as one could see. 5 li beyond we passed another small village, Tatuvan, from which a beautiful avenue led us on our way. About one li further on we reached a ravine that wound for 2 -2 I/2 miles through a slight rise of löss. Here the road was about the width of two arbahs and the steep sides were $2-4$ fathoms high.

At one place the road became broader and the sides were lower. The wall of the fortress at Ping fan could be seen at a distance of about 3-4 miles, barring the road between the hills on the left and the river on the right. The sides of the ravine again obscured the view and we only emerged from them, when we had practically reached some houses and a miao group preceding the fortress. The latter extends in the same direction as the valley of the river, i.e., $150^{\circ}-330^{\circ}$, with the long side along the river. Its size is about $600+1200^{\circ}$, and it is surrounded by a wall of baked bricks, 5 fathoms in height, with a crenellated parapet without loopholes. There are 4 gates protected by four-cornered, not very extensive bastions. Of the walls facing NW and SE only the latter has two small bastions, besides small circular ones at the corners. Along the long wall facing SW and the river there are small four-cornered bastions on either side of the gateway and half-way to the corners. None of them have turrets or clay buildings. The wall facing the mountains represents a curious broken line, approximately like this:


The mountains that form a chain of easily accessible hills, dominate the fortress entirely, being not more than $3-400^{\times}$distant. Opposite the fortress, up on their slope, there is a fairly large temple with its companion buildings. A bazaar street runs along the wall, between it and the river. The rest of the ground is dominated by the fortress and is practically bare.

Ping fan is the capital of the district of the same name and the residence of its mandarin and a Hsietai subordinated to the Djentai of Lianchow. There are 8 lungguans in the district with the following tchy and areas:


The area is said to be 31,110 Ching, of which only $1 / 4$ is irrigated, the rest being dependent on rain. One half is tilled annually, the other half lying fallow. Wheat, tchinkho, barley, some peas and a great deal of mustard are grown. The average crop is $4-5$ fold. The yearly taxes amount to 5,500 tan. The population of the town, including the suburbs, is about 2,000 tia. The supply of livestock may be put at $2-3$ oxen, $1-2$ horses and 2-4 sheep per tia. Only 1 -2 per cent keep sheep, usually $100-200$ head.

On the way to the town we met a great many people returning home with their New Year's purchases, usually consisting of some paper decorations to be hung up, one or two roughly made pictures in bright colours to be pasted on to doors or walls, red paper, a small piece of cloth, some sweets etc. 'The town streets were crowded and the shops and booths were well stocked with all kinds of articles. It seemed as though we had got to a lively trading centre. There were innumerable people about, many of them from the surrounding country places. I met al least $10-15$ fellows in irons with wonderful rascally faces. Chains and pieces of wood round their ankles made them walk with a slow, rocking gait. It was strange to see these tatterdemalions with their rattling chains sauntering among the decorated booths, joking and chatting with the shopkeepers and the crowd.

I did not see any Mongols or Tanguts from the hills, though I did see one of their products, butter in sheeps' stomachs. Ping fan lies on an arbah road from Sining to the Lien-chow-Tajuan or Lanchow-Ningsiafu road. The principal trade in the town is done in wool which is purchased from the inhabitants of the district and the hill-tribes in the neighbourhood. 5-600,000 djin are exported to the east annually. The place has a reputation for its saddles and articles of harness. A special kind of vermicelli in small pieces is made here which is very popular among travellers. Hardware is also produced and sold. There are about 200 shops, but only a few deal in cloth and expensive goods. Only 4 possess working capital above 3,000 lan. Here again there is coal, which we had not seen at our last two stopping places. - Snow between the gth and and Chinese months, but it does not lie. Rain occasionally between the ard and 8th months, though very seldom. Northerly buran in spring.

A considerable group of buildings, forming a mao, stands up against the SE wall of January 2 Ping fan and from it an avenue leads to a huge stone gateway, about $1 / 3$ of a mile from Hung-cher the wall of the fortress, crowned by a picturesque hexagonal or octagonal old tower village.
of wood with many roofs and bells fastened under their cornices and tinkling in the wind. It is supposed to have been built in honour of the god who protects the people from floods. At a short distance from the gateway we passed an old fortress wall falling to ruin, which crossed the road. Just beyond it was a bazaar street which led us past the Manchurian fortress, passing below its wall that faced the river. This was in the form of a regular square of 1,000 yds on each side. The gates were protected by semicircular bastions; between them and each corner there were two smaller, quadrilateral bastions. The wall was of baked bricks, 5 fathoms high including the crenellated parapet with its loopholes. Over the gateways and corners there were wooden pagodas, and small clay buildings on most of the other bastions. I did not notice any moat or protected area. The Manchurian fortress is dominated, like the town, by the mountains that are only slightly further off here. The distance from Ping fan to the fortress is about a mile and a half.

On the other side of the fortress there are many houses and the road runs through a village. The greater part of it is a couple of fathoms lower than the surrounding ground and it is the width of one or two arbahs. It is overshadowed at intervals by tall leaf-trees. The land on both sides is tilled and very densely populated. The mountains on the left had withdrawn slightly and the river kept close to the right bank. I5 li from the town we reached the village of Taljushupu with about 20 houses. 5 li beyond we passed Kheichentzu, of the same size, with a wall like an impanj. so li further on lay the village of ' Caitung with roo houses, a bazaar and a number of ruins. Here the valley became flat and in parts low-lying. Bushes were growing in the actual bed of the river and further down we could see tilled land and trees. The valley also became considerably broader. We rested for a time after negotiating this narrow ravine, which seemed interminable. However, our joy was shortlived, for soon the road turned away from the river bed and we found ourselves once more in a deep and narrow corridor in the löss.

The weather had been cloudy, when we started, but cleared up slightly; it was chilly, but milder than on the Kulang-Ping fan stretch, where we felt the cold as soon as the sun was hidden by any clouds. Traffic on the road was very lively, partly, perhaps, owing to the approach of New Year. The dust was unbearable. It was difficult to do anything about it, because it was prevented from dispersing by the walls of earth on either side of the road that kept away every breath of wind. so li from the last village lay the villages of Kow Chengyi and Tching-sö at intervals of 10 li , the latter with a small bazaar. 5 li beyond we passed through a larger village, Vizia shedza, with 50 houses, and 10 li further on a smaller one, Shuitsogo. After another 5 li along the dusty road, crowded with arbahs, we reached an enormous village, Hung-cheng-tzu. The distance covered is considered to be 70 li. Hung-cheng with its long bazaar street, numerous gates and walls, though low and dilapidated, has the appearance more of a town than a village. Inside the wall it is said to contain about 200 tja and in the neighbourhood over 400 . Trade seemed to be lively and there were a great many shops. Only 12 dealt in cloth and only 6 had a working capital of over 1,000 lan. - Snow between the 9th and 3rd Chinese months; it does not remain on the ground. Much rain from the $4^{\text {th }}$ to the 8 th month. No burans.

On the other side of Hung-cheng-tzu the country was just as densely populated and the land as well cultivated. There were clumps of trees here and there. Further south the valley appeared to be tightly squeezed by the mountains on either side. We did not touch that spot, however, for, when we had passed the village of Sydjamuo, 3 li off, the road took a sharp turn to the east and took us into a jumble of mound-shaped barren hills. Winding along the foot of these hills, it led us from one mound to another. As a rule it ran along a valley for a time and then crept up the slope of a mound to take us to another. A ravine-like deep crevasse ran along the middle of almost every valley, with perpendicular sides and often with considerable ramifications. The road was good, though the ascents and descents were often long and tiring with heavily laden arbahs. -- Another road leads along the Chuang lang ho, crossing the Hwang ho at Sincheng. It is avoided by arbahs, as it is very stony and the Hwang ho has to be crossed by a bridge of ice.

After proceeding for 5 li to the ENE the road again turns south. to li beyond we passed the village of Kuaninsy of 15 tja. The valley we had been traversing became rather wider here and there were some tilled fields. 5 li further on lay the village of Chang dia chuang of 30 tja . On the summit of an adjacent hill we could see the outlines of a building that looked like a deserted fort. A little further on we passed another group of houses of the same village. 5 li beyond we reached the village of Khanshui ho of 60 tja witl a small bazaar. It lay on a small river of the same name that could be seen winding its way NE-SW far down at the bottom of a crevasse. The water was said to be salt. The direction of our road was now ESE. The tilled fields, few and disconnected, now ceased. to li further on and at the same distance from each other lay the villages of Tindia pu of 7 tja and Khadia tsuiza of 30 . We now went for a time along a valley about $\mathrm{I} / 3$ of a mile wide, between small hills. On the left there was a deep crevice running parallel to our road and 5 li from the village we crossed the crevice by an elegant bridge with two gates. The space between the bridge and the bottom of the crevice was filled with tightly packed earth. 5 li beyond we passed the farm of Lango, and the road turned NE. The ground, which had been yellowish, now assumed a red tinge. The surface of some of the mounds was a dark green colour, so that in the dull evening light, combined with the red earth, the dreary landscape took on a warm colouring. We passed another farm, lost in the endless sea of mounds that met the eye wherever one looked.

At a giddy height, on the summit of a hill that rose up like a column among the mountains, we caught sight of a small temple with the traditional sacrificial urn before the door. In the far distance another one could be seen standing out against the grey sky in an equally inaccessible position. Another 5 li and we passed the village of Luotche of 50 tja in two groups lying a few li from each other. Here there was tilled land again and an occasional tree. The village of Ydiava was another 5 li further, also with about $5^{0} \mathrm{tja}$. Here wheat, millet and tchumiza were grown. The average crop was $6-7$ fold. Snow in the ist or and month, sometimes none at all. Rain very irregular between the $4^{\text {th }}$ and 9 th months. Easterly burans in spring. The curious thing about all these villages is that they are dependent on rainwater, snow and ice which is collected in big holes. It had proved useless to dig wells. When the water supply is insufficient, water is fetched from places at a distance
of several dozen li. At Ydiava a charge of 30 tchok is made every time a horse is given a drink, a thing that was unknown anywhere in the desert I had crossed. The village of Khanshuiho that I have referred to forms an exception, as it obtains salt water from the river. - Traffic on this part of the road was quite insignificant to-day. - The distance is estimated at 70 li. I would call it about 26 miles.

January 2gth. I li from Ydiava we passed its counterpart, Hsiao Ydiava, a village of about the same Lanchow. size. Very soon after we left the valley in which they were situated. The road took us zigzagging up a fairly considerable height and down again into another valley. The hill put a strain on the arbah horses, but the road was good. A little snow had fallen during the night, and a thin covering of white made the landscape stand out in greater relief.

After ${ }_{5} 5$ li we passed a couple of mud huts. io li beyond lay a village with some patches of field round it. A small, deserted fortress stood on the hill on the left, near the village. The road now ran along the bottom of a ravine-like, comparatively broad and deep valley, which widened slightly for a distance of a few li. Then the gorge grew narrower again. The perpendicular reddish sides were fairly high, often taking on bizarre shapes, such as tall, delicate columns with beautiful facades etc. About 15 li from the last village the mountains grew larger and the löss gave way to granite. 5 li further on the gorge debouched into the broad valley of the Hwang ho. The river flowed further south and was not visible. My Chinese guide said that we had reached the valley of the Shagu ho. This was probably a minor tributary coming from the N that flowed between the road and the Hwang ho, but it was not clearly visible from the road either. We could only see a white surface of ice from time to time shimmering among the fruit trees growing in the valley below. The valley was several miles in width. In the $N$ it was bounded by the mountains we had passed through yesterday and to-day and in the S by a chain of considerable mountains with very rounded outlines, often flattened at the top. They looked like gigantic dunes placed next to each other with their short sides facing the river valley. The latter was densely cultivated and there were many fruit trees round the fields. The fields were level, cleared and rolled, as only the Chincse are able to keep their fields.

We set our course ESE and went along the foot of the mountains. For about io li the road was soft with fields on the right and in some parts, on the left, too. No houses were visible, as they lay further south in the valley or possibly on the opposite bank of the river. There was a thick mist rising from the fields, so that it was impossible to distinguish objects clearly at a little distance. This was due to the snow that had fallen during the night and melted. We now came to slightly uneven and very stony ground. Here lay a village enclosed by a high wall. We crossed a river bed coming from the N which was less stony.

From the opposite and rather higher bank a lovely view of the Hwang ho valley was spread before us. The river seemed to come from the west, rolling its huge, dark waters in broad sweeps. The southern bank was densely populated and trees grew there. Beyond the populated area the ground rose in a high terrace that led up to the foot of the mighty chain of mountains. A few miles further west the northern chain of mountains, which was very considerable here, seemed to reach the river bed. A gate was visible on a spur of the


A drauing of Lanchow ardered by the author and draun in Chinese ink by a bained designer on the tpot.
mountain just above the water and the road led up to it. On the opposite bank a high ridge jutted out towards the river bed. An angular-looking fortress, with towers and pagodas of wooden fretwork, stood high up near the foot of the mountains on the bare ground SW of the ridge. It seemed to command the whole of the river valley. On the ridge there were 4 low, broad towers with loopholes and crenellated parapets, placed at the corners of a square.

At the foot of the ridge, just $E$ of it, at the bottom of the valley, stood Lanchow, the capital of Kan Su and the seat of the Viceroy of Lanchow and Sinkiang. Its N wall extended to the bank of the river, which formed a whirlpool just above the town, and the water ran in big waves here. On the opposite bank a little suburb was squeczed into the narrow, steep space between the mountains and the river. It ascended in an amphitheatre from the water to the mountains and was further extended by small temples scattered over the nearest mountains. The banks were alive with traffic and the river was incessantly being crossed by large ferries, simply seething with crowds dressed in black and blue.

We crossed the river successfully on a ferry. These ferries replaced a pontoon bridge that had been dismantled for the moment. The ferrymen were dressed in a kind of uniform of red and blue. They were in the employ of the Chinese Government and no charge was made for crossing. The men managed their ferries very skilfully. Tchao met us on the opposite bank. He had secured dirty quarters consisting of 4 dark hovels and a kitchen in a sarai in the $W$ gateway of the town, between the inner and outer gates. A solemn mood came over me as I rode through one of Lanchow's mighty gates and it was a pleasant break in the monotony of the journey to hear the tramp of the horses on the huge stone slabs of the street and to pick our way through the bazaar, seething with people and vehicles.

It grows irksome in the course of time to write up your diary daily and in the end you begin to look for pretexts for avoiding it now and then. My diary has had a rest for a whole month, rather unreasonably, for after a spell of freedom it is all the more difficult voluntarily to get into harness again.

On the day after my arrival, when every one of us was busy with cases and packing and the fuss preceding a lengthy sojourn in a place, Farther Leon van Dijk, one of the two
local Roman Catholic missionaries, called on me. He practically forced me to pack up my belongings again and move to another inn in the outer town, known among Europeans, like the street it lies on, by the name of Karius in honour of a business man, Mr Karius from Eastern China. He spent a few months here about a year ago and it is probably due to his energy that my room boasts a shelf fixed to the wall which adds considerably to its comfort. The horses had come off best and were able to rest after their exertions in an airy and large shed, but my men and I were also comparatively comfortably installed. I felt ill and had a pain in the right lung.

Chinese New Year's Day was celebrated a day or two after our arrival. 'The rumble of drums, the clash of cymbals and banging of percussion caps could be heard in my room throughout the 24 hours with a short respite during the night, the noise announcing that a great event had occurred. When I went out for the first time a day or two after New Year, the town was unrecognisable. All the shops were closed, doors and columns in front of houses were decorated with Chinese words decoratively inscribed on red paper, paper lanterns and other paper adornments. A crowd of men moved carefully along the streets, which were alive with elegant little carriages.

These little carriages, with their boxes covered in dark cloth, sometimes with a broad band of a lighter colour at the bottom, look very pretty, as they bounce on their narrow, but solid wheels and shake between the enormous stone slabs paving the streets. The metal fittings of the harness sparkle in the sun, the hood is tricked out with paper flowers and silk ribbons in bright colours and the plump mule with its slender legs and high-held head hurries over the rough street paving, urged on by the bareheaded driver who runs by its left side. Through the tiny windows of the carriage you catch a glimpse of a figure dressed in silk, and in front, on one of the shafts, sits a servant in his finery with a red leather portfolio of imposing size for visiting cards, unless he makes way on horseback for his master's equipage. Everything that is not new is impeccably clean and polished. Most of the clothes arc of black silk and all heads are covered by the traditional black felt hats with their low knobs hidden under red fringes. The wealthier men have brims of short-haired fur, shining like silk, to their hats. You see people in the street stop and greet each other with the ceremonious "tching ngan» bows (a kind of curtsey with the knees spread out, while the right hand seems to fumble for something on the ground). Occasionally you see a group of visitors in front of a house, bidding farewell to the host who stands at the top of the stairs, while they bow stiffly with their arms pressed to their sides. No women are seen. It is difficult to recognise the dirty Chinamen of yesterday in this crowd arrayed in rustling silk, and yet - what uniformity even here. It is just as though they had been cast in the same mould, from the mandarin to the street porter, the same dress, the same manners, the same customs in connection with the festival. Class distinctions are far less striking here than among us.

The Chinese, whether of high or low rank, is very much addicted to forms and ceremonies, i.e., to play acting; give him the right costume, and he will play any part you like. If you did not see a mandarin's blue, red or green litter, preceded by a numerous retinue with red sunshades and various insignia, moving through the crowd occa-

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sionally, you would be inclined to take all these finely clad people for mandarins. Rich or poor, noble or humble, all are busy paying New Year's calls; the reception proceeds in the same manner and it would almost be true to say that the hackneyed terms exchanged over the regulation cup of tea are the same everywhere. - This fussing, running about and driving goes on for quite 5 or 6 days.

I felt ill and decided to stay indoors during this period as I could in any case not employ the time in any useful work out-of-doors. However, the presence in the town of Mgr. Otto, the bright and attractive Roman Catholic bishop of Northern Kan Su, lured me out of my lair to pay him a call. I spent a couple of pleasant hours with him and his two misesionaries here, Leon van Dijk and Father Jadoul. Both of them made an excellent impression on me, intelligent, well educated, taking an interest in many things and as free from prejudice as anyone of their calling could be. Born of wealthy parents, they had grown up in the lap of luxury and had subsequently, from conviction, embraced this work, full of privation, disappointment and danger. Van Dijk sketches very well and is a violinist of outstanding merit.

As I have mentioned this subject, I cannot resist saying a few words about the life that a Roman Catholic missionary leads. Whether they are by themselves or working in a group, their daily routine is strictly mapped out, almost as if they were within the walls of a monastery. Though they rise with the sun and in winter long before him, they can only spend a very few hours according to their own inclinations. All superfluity is prohibited. Their meals are Spartan in their simplicity, frequently really bad. For the requirements of the church they prepare quite good light, red wine, but it is not served at table except on great occasions. Coffee that is too old, without sugar or milk, and a few dozen bad cigars a year can scarcely be considered luxuries. If one of them falls ill, he has to manage as well as he can, for medicine is very limited and there are no doctors. No money may be accepted even from the missionary's own relations and the sanction of the bishop has to be obtained even for the most trifling present. If the present can be divided, it is often prescribed that the gift shall be shared with brother missionaries in the vicinity. In fixing a place of residence no consideration is paid to the missionary's wishes or inclinations. This institution is held together and guided by iron discipline. Their mode of life is so simple that many of them do not spend more than 100 taels a year and live almost exclusively on cereals. In Lanchow, where living is dear, the expenditure of the missionaries does not exceed a few hundred taels. The only luxury they allow themselves are their buildings, which are often excellent, according to Chinese standards. Scientific books are easily allowed by the bishop. - No change or interruption must be expected in this life, for, before leaving for China, the missionaries not only take the monastic vows, but also undertake that they will not return. - It is impossible for me to form a judgment of their work, but as instances of their practical and philanthropic work I can quote a school at Sisia, where tuition is free of charge, irrespective of the trade or profession the pupil intends to take up, and two children's homes at Kanchow and Sisia, where orphans and children abandone or surrendered by their parents are brought up. The girls are married to Christian Chinese, while the boys are taught various trades. - It would be hard to analyse their moral


## LANCHOW

Lanchow lies in the valley of the Hwang-ho, closely hemmed in between hills and mountains. In the $N$ mountains come up to it, dipping steeply into the bed of the river opposite the town. A suburb, about $2 / 3$ of a mile long, has been built on their lowest slope, the houses standing in two rows on either side of the road from Ping fan. At its $E$ end, at the foot of the mountains which are lower here and much less steep, there is a smaller suburb surrounded by a clay wall of insignificant dimensions. In the W , however, the suburb is bounded by a spur of the mountains falling almost perpendicularly into the river. A gate as wide as an arbah has been cut in it - the only ingress into Lanchow from the $W$ on this side of the river. Further E the mountains withdraw from the river, the llat, sandy bank of which forms an open space of $1 / 3$ to $2 / 3$ of a mile in width here. A narrow cleft with steep mountain sides divides the suburb in two. In the $E$ a tilled, flat valley extends, $1-2$ miles wide. Close to its $N E$ corner there is a group of impanjes, surrounded by crenellated clay walls. A few single houses, usually surrounded by a few trees, stand further off. The whole of the SE part of the valley is occupied by a cemetery, several miles in length and extending to the foot of the mountains in the $S$. In the $S$ there are scattered houses on the ground between the town and the mountains from the height of the military school and further $W$ they are built closer and closer to each other until they completely fill the narrow strip of land between the wall and the spur of rock in the SW. Four square towers of brick have been built on the nearest hill. Their size is about 8 fathoms in width and length, 10 fathoms in height, and they are provided with a crenellated parapet and a gun embrasure on each
influence on the Chinese. It is remarkable, however, that Chinese who have adopted Christianity, take a broader view of things, and can follow our trains of thought and understand European culture more easily. Suspicion of and aversion from everything that is European disappear and often it seems, at any rate, as though they were less given to lying.

Besides the Roman Catholic mission there are two English missionaries here, Mr Pready with his young wife and Mr More (Moore?). Their congregation is very small in numbers, but the former does a great deal of good in attending cases of sickness, in which he has had two years' training in a hospital. The small English station is inside the fortress on one of its noisiest streets, but once you are inside their modest little drawing room, you feel as if you were in some corner of England with cosy basketwork chairs, polished tables, an open fireplace etc. They seem to live rather apart from the other Europeans, but this is, no doubt, due to the difference of language.

The hospitable house of the Belgian Rob. Geerst is the centre of the European community in Lanchow. He was appointed about a year ago as a chemist in the Chinese service and lives here with his sister, Miss Geest, and a nephew, a boy of 12, very advanced for his age, who is full of pranks and looks very amusing in his Chinese dress. Soon after my arrival I was invited to dine at the Geersts', where I met some of the European residents. There were about a dozen people present. It was a pleasant change from my monotonous existence to see a properly laid table, cham-
side. The very dilapidated clay wall of the Manchurian town is $31 / 2-1$ fathoms high and provided with a crenellated parapet of brick. The Agate is open, the others being walled up. 2 deep clefts come up to the $\mathbf{N}$ and W walls of the fortress. The space between the river and the löss hills is well tilled, inhabited and covered with fruit-trees. The road from Ping fan via Sin-cheng follows this bank of the river.

The inner town is densely populated and intersected by many streets and lanes. It is surrounded by a mighty wall of baked bricks which reaches a height of 10 fathoms on the river side. The other sides are slightly lower. The wall and corner projections are inconsiderable. The gate projections are of the usual size. The E. gate is protected by two walls, of which the inner wall slightly dominates the outer one. The usual large wooden pagodas over the gates; small clay buildings on the other wall projections, except towards the river. A fosse, $6-7$ fathoms wide, with flowing water, runs outside the town, except on the river side. In front of the gates the fosse has been led underground and in other places it is screened by rows of closely built houses. The outer town is enclosed by a wall of beaten clay, $4^{1 / 2-5}$ fathoms high and provided with a crenellated parapet of brick. Its NW part forms a separate fortress enclosed by a similar wall enveloped by the outer town. The few wall projections are insignificant. The gates have no outer protection. The $W, S$ and both E gates are crowned by brick towers with gun embrasures in 4 storeys, 6 in each row on the sides facing the town and outward and 2 in the two others. See illustration. The $S$ and the southern of the two gates facing $E$ also support similar towers on their corner projections, but with gun embrasures in two storeys, 2 in a row on each of the 4 sides. The space inside the wall is densely populated and has good communications. There are suburbs of small size outside the gates, except those outside the $S W$ and $W$ gates, which form a connected mass which entirely encloses the $S W$ corner and $W$ side of the town. Quite close to the wall there is a fosse, about 3 fathoms wide and about 2 fathoms deep. It does not, however, enclose the separate NW part of the town. - Drawn by the author.
payne and other delicacies and evening dress. The man who aroused my admiration by wearing the latter was M. Alphonse Splingerdt, the Chinese interpreter to the Belgian Embassy in Peiping, at present on leave at Lanchow, where he is a "grand faiscurn, a kind of factotum to the Viceroy and particularly to the Taotai. He is the son of a very well-known Belgian, who died at Hing-anfu a couple of years ago. He came to China as a servant of one of the Belgian missionaries and was subsequently taken into the Chinese service, where he did so well that at the time of his death he was a mandarin with a red knob. He must have had some interesting adventures during his chequered career. Many European explorers were entertained in his hospitable yamen and had referred with gratitude to this interesting man, who murdered all languages with equal assurance. Full of good-nature and joe de vive in success as in failure, he had led a busy life and left behind him a little swarm of 22 children, for whom he had apparently been unable to provide much beyond a careful upbringing according to Chinese standards. One of them was M. Alphonse, who, though he may not enjoy the same measure of success in life as his father, has certainly inherited his ignorance and self-assurance. He makes commercial and technical calculations for the Chinese in practically any sphere with the same air of conviction as he sits in a drawing-room and murders French, English, German or almost any European language. Geerst, who has to make extensive investigations before he can tell them what lies hidden in the mountains, seems like a child to the Chinese compared with Splingerdt, who can say, at a distance of dozens of miles, what percentage of mineral wealth they contain. It is hard to imagine that such „bluffing» should succeed for any length of time, but after all this is China.

Among the other guests were Herr Delos, the youthful representative of a German firm in Eastern China which had undertaken to build a steel bridge over the Hang ho, and an American engineer connected with the construction, Goldmann, who remained stubbornly silent in all languages. In addition to these representatives of European and American culture there is a small group of Belgians who form a community of their own. Thasbart, a foreman, Coutellier, an ex-soldier, and Scalier, a soldier still in active service, with his wife, formerly a governess. They are employed as foremen at the works and mines that are under construction.

To anyone coming, as I did, from the west, Lanchow is of interest at present for the reason that the reforms planned in Sinkiang were introduced here 2 or 3 years ago and it is possible to observe not only the manner in which they are being carried out, but also their extent and success. My work in this direction was interfered with considerably, however, by the Chinese holidays which continued for rather more than a fortnight to the accompaniment of deafening noises which the Chinese call music. Bands of amateur musicians, usually made up of $6-8$ drummers with drums about twice as high as ours and the same number of cymbalists, parade the streets daily, and with two flag-bearers at their head, they belabour their unmusical instruments in the sweat of their brow. As custom demands that they should, while playing, leap into the air like acrobats, the
bands advance at a snail's pace, followed by a crowd of admirers. The rhythm of the slow music is $1,2,3-1,2,3-$ and $1,2,3,4,5,6,7-1,2,3-1,2,3$, $4,5,6,7$ and so on without end. Every other bar the cymbals are held in an ordinary position or raised high above the head of the player, turn about. A small fee is charged for the pleasure the musicians work so assiduously to give the inhabitants of the street. A certain effect is aimed at by their dressing exactly alike and by furling and unfurling silken flags. I enjoyed the great privilege of having one of these bands daily outside my quarters. Before moving on they belaboured their instruments for hours with frantic energy outside my gateway, ie., 5 or 6 yards from my paper window, and it is scarcely necessary to add that my feelings went through the scale from fury to despair more than once a day. And no sooner had they moved on than percussion caps started exploding outside the gate and in every corner of the yard with a noise as if guns were being fired under my table or under the clay floor on which my bed was standing, for I spent quite a week in bed with fever and severe pain in my back and legs and terrible headache. It was curious that 4 of my men were attacked by the same illness, rather like influenza. Mr Pready, the missionary, kindly visited us several times and treated us with homoeopathic medicines. In addition to this hospital of mine he was busy attending to the Roman Catholic missionary Coppieters who had fallen ill, while on his way to Hing-anfu with Bishop Otto, and had been left behind. When the fever left him at last and he was on the road to recovery, he astonished us all by asserting that he had died at Lanchow and was alive again owing to a miracle. I cannot imagine how such a strange idea is to be got out of the head of a Catholic, who believes in miracles. At any rate my efforts proved unavailing.

The feasting and playing of music by the Chinese ended in wonderful illuminations on the 14th-r 6 th and a military festival on the plain to the $S$ of the town on the 16 th. The nearer the time approached for returning to everyday life, the wilder and noisier grew the music and explosions. It seemed as if the peaceful Chinese had been seized with a frenzy for noise and music.

The illuminations are prepared for during a whole year, I believe by each shopowner's having to contribute 2 tchok daily. Light beams are laid across the street from roof to roof at intervals of a few metres. White cotton cloth is spread over them, almost as wide as the street and along its whole length. Three paper or cloth lanterns are suspended from each beam, red or white, occasionally with drawings or Chinese inscriptions. Some of the gateways or the fronts of certain houses are also decorated with lanterns. As soon as these are lighted, the whole town becomes alive. A procession of small carriages, wriggling along all the streets like a snake, conveys the female element to view the great spectacle. It is impossible to drive in the opposite direction and you have to wait an interminable time if you want to cut across the procession. You can watch this uninterrupted chain of small carriages squishing between the pavement stones for hours. Each carriage contains two or usually more heavily painted women wearing their best dresses and ornaments. The front of the carriage is further embellished


New: lear celebrations outside the tour gate of Lanchow:
by a crowd of gaudily dressed and, in many cases, painted children. All the women insist on going out on these days, from the wives of the mandarins to the poorest women in the town. If they cannot afford to drive, they strut about on their tiny feet at the risk of getting arms or legs crushed by the wheels of the arbahs and collecting large drops of tallow on their dresses from the lanterns that have no bottom. In the faint light you get a glimpse of the beauties of the town, sitting cross-legged and half-hidden under the hoods of the arbahs - women who never show themselves out-of-doors on ordinary days.

The military festival, however, affords a still better opportunity. It is held about noon and from the early morning crowds of people stream out on to the plain just outside the south wall of the town and a procession of arbahs carries the pleasure-seeking local beauties out of their prisons once more. The roofs of the houses are thronged with less fortunate, but almost equally brightly arrayed women. Strect-vendors with candied fruit, sweets and various kinds of food on large trays hurry to and fro between the vehicles and the stream of people, offering their wares at the top of their voices. The carriages are drawn up on the plain in two long rows, forming a wide lane, along and around which the crowd of pedestrians seethe. A second and third row of carriages joins the first and the plain is covered with a seething crowd of thousands of people. The children and pedestrians suck their sweets and the women eye each other from their arbahs, preening themselves in their ornaments and loud-coloured dresses. Among the pretentious and elegant carriages of the townspeople you see large carts here and there from the surrounding villages, brimfull of inquisitive women, both old and young. The bands with their thundering drums and clashing cymbals march across the plain in different directions, usually preceded by 2 or 3 painted individuals, dressed as men and women who appear to be courting each other with grotesque gestures and ungraceful, monotonous jumps, to the delight of the multitude. In one place the crowd is amused by 3 men, representing steamers, who move

about under the guidance of leaders, also painted, who run by their sides. In another a small carnival procession moves along in bright costumes. Far away a gigantic dragon, supported on the heads of a dozen men, twists and turns majestically.

The garrison marched up about midday. The men looked pleasing in their black. turban-like headgear and dress of the same colour with an inscription in red characters on their chests. The bayonets on their old rifles were decorated with large yellow paper flowers. They marched in two rows with a broad gap between them. They were of medium height and young, but they took whatever steps they liked in marching. The battalion commanders were surrounded by masses of bright flags. One battalion after another marched up and formed up on either side of the lane between the vehicles. The smart, complete battalions that had already been organised afresh, were succeeded by the old "tchyping» troops with their typical apron-like uniforms. Their numbers were very small. A battalion consisted of only a few dozen men, but the number of officers and flags was, perhaps, larger than in the new battalions and the latter, especially, decorated the plain. From time to time some monotonous notes were blown on long Chinese trumpets which are probably doomed to disappear soon like the old uniforms. Finally two small detachments of cavalry with many coloured flags trotted up. The horses were spirited, small and wellfed, the riders looked smart and sat their mounts well, but had no idea of keeping line or guiding and managing their horses. At the head of each of the latter detachments rode a horseman clad in ancient armour that sparkled in the sun, carrying a quiver on his back with arrows showing above his shoulders. At last, when all the troops were drawn up, a blast of trumpets announced the arrival of the Viceroy. The battalions presented arms and, followed by the admiring gaze of the crowd, a green palanquin with the historic armour of the Viceroy of Kan Cu moved forward between the lines. -- The festival was over and with it the series of extremely modest entertainments with which the Chinese mark

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The armour of the Viceroy of Kian Su from the time of the Emperor Ming.
the arrival of the New Year. The noise of the drums and explosions will continue up to this evening, but to-morrow the town will resume its ordinary appearance and it will at last be possible to work in peace.

Shen, the present Viceroy of Kan Su , has for $21 / 2$ years administered the 3 provinces that form the area under his viceregency. He must be scarcely 50 and was formerly Fantai and subsequently Governor in Hing-anfu, where he enjoyed a good reputation. His attitude towards Europeans is said always to have been very correct, and though he may not be a pronounced pro-European, the fact that several Europeans have been appointed to posts in the Chinese service proves that he is not anti-European. To my surprise he took no notice for several days of the card I sent him on arrival, though this may have been because the Chinese New Year coincided with my arrival, for later he paid me more attention than I could have expected by calling on me twice. For want of room I was unable to receive him.

When I had recovered from my illness and inquired, if he would receive me, I was invited at once to his yamen. I was received in exactly the same way as by an ordinary Chinese mandarin, excepting that the official residence (yamen) was more 'spacious and the number of officials was slightly larger. There was stricter discipline, too, for there were none of the inquisitive men who usually followed on my heels into the reception room.

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The armoter of a general from the timer of the Emperm Ming.


The walls in the latter were hung with Chinese inscriptions and drawings, all on large paper scrolls with a gold ground. The furnishing was the same, as in any other yamen, only rather more refined and neat. There was a brazier of coals in the middle of the room. stiff chairs and small polished tables along the walls and a "kangn in the background with a couple of wolves' heads, between which the customary low table with the tea-cups was placed.

The Viceroy was rather a stout man with the swaying waddle that the Chinese covet so much. He looked as if he had no aversion to wine, cigars and the other good things of life. The questions and ideas of this satrap invested with far-reaching powers to reorganize three enormous provinces were about the same as those of any humble mandarin resident in a remote corner of this huge empire and after a superficial conversation I could form no opinion of him, except from his appearance. It seems as though they suck in these stereotyped phrases with their mother's milk and cannot get rid of them in later life. Shen, howcuer, had seen something of the world, for in his youth he had served in the Chinese Embassy in St. Petersburg. It was not easy either to judge him by his work or what one sees of it, because one could not tell what had been done on his own initiative and what had been duc to pressure from Peiping.

It seemed that these high dignitaries were sent to their posts with a cut and dried programme which they had to carry out according to the resources at their disposal and,
above all, according to their own ability. All these programmes include, in the first place, the construction of certain railway lines, the reorganisation of the troops according to European pattern, the improvement of the resources of the province by the introduction of mining and manufacturing on behalf of the administration, and in the second place the establishment of schools, both civil and military, on established principles, and the abolition of opium smoking. The length of tenure of a post by one of these dignitaries depends on the more or less satisfactory fulfilment of this programme, for Peiping pays little consideration to the difficulties he may be faced with, surrounded as he is by incompetent officials, often opposed to reforms, and with insufficient resources at his disposal. Should any of his undertakings miscarry, he may be sure that willing tongues will lose no time in reporting the matter to headquarters; even if all goes swimmingly, he has, besides his work on the spot, to wage an incessant war with slander and intrigues at court. His every step is watched by spies and in order to cope with them he is forced to keep an eye on proceedings in Peiping by means of his own spies. It is not surprising that under such circumstances some reforms are only carried out with a view to being able to report them to headquarters, while others, more seriously thought out and of graver import, proceed more slowly and are not accompanied by the benefits they should produce. This extremely precarious position of the higher Chinese officials is made worse by the purely instinctive and stubborn, if not outwardly exhibited, resistance that every change in existing conditions evokes among the uneducated Chinese masses. During a visit that Shen had to pay to a temple last summer he was subjected to an unheard-of insult, according to Chinese ideas, a poster with insulting contents being stuck up on the arch of the town gate. Others, directed against the Taotai, his closest counsellor and assistant in the sphere of reforms, had been displayed on several occasions in that part of the town in which his new industrial undertakings and school had been established.

The following example shows how unreasonable such dissatisfaction often is. Shen is the first Viceroy to abolish the custom that his subordinate officials, merchants etc. should make him valuable presents on his own birthday and his mother's, at New Year and on other special occasions. This does not mean, however, that he scorns to follow the Chinese custom of making a certain illegal income. He is forced to maintain a staff of about 200 people in his yamen, keep a great many horses etc., and his pay of 24,000 taels a year would not nearly suffice for this. As there is a crowd of $600-800$ hubus (officials awaiting appointment to regular posts) in addition to the regular officials in Lanchow, these gifts - when each man tries to purchase the goodwill of his superior - represented a very considerable sum both for the Viceroy and for the more important merchants, furriers etc. in the town. The latter were now frantic at being deprived of this appreciable income. I should not be surprised, if even these impoverished "hubus», whose purses he wished to spare, were displeased, since in this way they were deprived of a means of attracting attention.

Even the most useful reforms are often neglected for fear of provoking displeasure. For instance, the idea of establishing a water supply from the Hwang ho to the town, an easy undertaking in view of the proximity of the river, was abandoned. The watercarriers of the town, about 300 , come from Shui-chuan; they are reputed to be far more
unruly than the humble inhabitants of Kan $S u$, and they might easily have hit upon the idea of causing a riot and storming a yamen. It is very much in the interests of a mandarin to avoid disorder. It is infinitely more important to him that his three years' tenure should pass smoothly than that the position of the province and people should be improved by useful reforms. A single riot is enough to ensure his removal and ruin his future career.

There is not much to be said about Shen's assistants. The Fanti Fen is a picturesque old man of 73 who spends his days in his uncommonly beautiful yamen in the society of his 9 wives. Like the Viceroy, he is a Manchurian. He shows goodwill in his attitude towards Europeans, but from the fact that practically all reforms are financed by the miking treasury administered by the Taotai, while the money bags of the Fanti are kept carefully under lock and key, he can scarcely be accused of much zeal for reforms. He is addicted to opium smoking, and so is the Viceroy. - The Njetai is an old wreck and had only been here for a few months.

The Taotai Pen is undoubtedly the most interesting personality among the higher officials of Kan Bu at present. He was sent here from Mukden at the request of Sher in view of his special gifts for introducing a new organisation. Like the Njetai he is a Chinese, and unlike his colleagues in high posts he is not an opium smoker. Pen is 42 , vain and ambitious, with an unruly temper and evidently not an easy character. His service at Mukden, where he took up an appointment shortly before the Russo-Japanese war, brought him into contact with both Russians and Japanese and also afforded him an opportunity of estimating modern technical progress in many spheres at its true value and turned him into a decided supporter of reforms. He seems to be interested mainly in industry and in creating improved conditions in town life. It is hard to say how much is done with serious intent, or to decide to what extent he is forced to modify his views to accord with those of the Viceroy, though it would seem that his energy and superior ability should enable him to accomplish what he considers right. The fact that military reforms are not a primary consideration at present, is apparently due to the need for economy in some spheres in order to be able to concentrate more effectually on others. The main idea of the reforms here seems to be to increase the resources of the country in order in the near future to build the railway from Hing-anfu to Lanchow and probably then seriously to take up work in the military sphere. The Viceroy, however, seems less keen on this than on other suggested reforms, while the Taotai Pen, on the contrary, explained to me at great length how important it was to have a strong army to rely on. Having witnessed the recent terrible struggle, during which China was condemned to watch two foreign armies destroying the fertile plains of Manchuria, he is thoroughly convinced of this necessity, though probably this interest conflicts occasionally with the necessity of submitting eloquent reports to Peiping.

Pen spent quite an hour in giving me his views and impressions of the late war. On the whole he appeared to be well disposed towards the Russians. They enjoyed a good reputation in Manchuria. Even children had been taught by the Russians to say "papan and "mamma", whereas, when the Japanese arrived, they ran away and hid. In comparison with the latter the Russians paid well, Russian officers giving Chinese who held
their horses a rouble and so on. He considered the officers inferior to the men and declared that he had often told them that with their men he would gain victories. He had himself seen officers hiding and did not consider them much better than the Chinese. Kuropatkin was a capable general, but Linyevitch merely an old gas-bag. The supply of food, clothing, medical service ctc. among the Russians he thought excellent. - The Japanese had treated the Chinese most unscrupulously, mere suspicion being sufficient to condemn Chinese to execution, women being carried off and payment being seldom, if ever, made for anything requisitioned from the population. He believed this was principally due to the fact that they simply had no money. If the war had gone on for another three months, the Japanese would have been unable to continue it, but would have had to sue for peace. They had not dared to demand an indemnity on the assumption that Russia would prefer to continue the war with the same funds and they were themselves too exhausted for that. Now, too, they were weakened to a very great extent and could not think of another campaign. - He was surprised that the Japanese lived so simply. He had once been invited to dine with a Japanese general. The fish that was served gave forth such a stench that he could not touch it and nothing else was offered, but the general seemed to enjoy it as if it were a feast. - The Japanese intelligence service and spy system had astonished even the Chincse. Mukden was alive with spies. Shortly after the Japanese had entered the town a general called on him, riding into the courtyard of his yamen with a mounted escort. The man's face seemed very familiar and he asked the general whether they had met before. "Very possibly", replied the general, "for I lived in Mukden for a long time and ran a brothel». The most curious part was that, when he turned into the Taotai's yamen at the head of his escort, he heard someone in the crowd of sightseers exclaim that his face seemed familiar. The general pulled up his horse, turned to the crowd with a smile and informed them that he had been the owner of one of the most renowned brothels in the town. "Il n'y a pas de sale métier, il n'y a que de sales gens", says the proverb.

To return to the Viceroy and his reforms, it is worth mentioning that he is said to have been accused by the all-powerful Yuan Shih-K'ai of having neglected the troops. It seems likely that his tenure of office will not be renewed, when his three years' term expires in July. He seems to stick stubbornly to the idea that the principal thing is the rapid construction of the railway and with this in view he hurries on work in a gold and copper mine in order, with this source of revenue, to undertake to carry out the railway scheme during the next three years.

March ist. In examining the work of reform more closely I have formed the conviction that the Lanchow. Viceroy's term of three years, which will soon come to an end, has been nothing but preparatory work. - The building of the railway does not appear to have been planned very seriously. Its present terminus is at Chenchow, 12 days' journey from Hing-anfu, and even if, as people maintain here, its construction is proceeding, it is impossible for anyone to determine, even approximately, when it will be completed. The expenditure is said to amount to no more than 600,000 taels a year, Honan, Shensi and Kan Su paying 200, ooo taels each. When it reaches Hing-anfu, the idea is to reduce the number of troops
in Honan and to employ the discharged men and the expenditure on their maintenance in extending the railway to Lanchow. The income from the mines and works started in Kan Si and from the completed part of the railway would be added. The cost of the section from Hing-anfu to Lanchow is estimated at 20 million taels. The rails cost 10,000 taels per li. The section from Chenchow to Honan-fu is being constructed by Belgians (about $300-400 \mathrm{li}$ ) who have contracted to advance the money or extend the line to Hing-anfu ( $800-900 \mathrm{li}$ ) at their own expense. The Chinese Government, however, wants to construct it with its own funds. An attempt to increase the land tax in this district proved a failure and had to be given up owing to disturbances.

The Viceroy declared that it would not be built for 20 years. It is supposed to have been settled in principle that it is to be extended to Urumchi, but no scheme appears to have been drawn up so far for raising the necessary funds. Great hopes seem to be built, too, on establishing mines and factories in Sinkiang and Kan Bu for accomplishing the scheme. - The proposal of the Dian Dziun Tchang for connecting Kuku Khoto and Urumchi by a railway is known here, but there does not seem to be much faith in its early accomplishment. It would be necessary to connect Ningsiafu with the same line and then extend this branch to Lanchow. The fact that the steel bridge at present being constructed over the Hang ho was not commissioned to be built large enough to carry railway traffic indcates, however, that no optimistic dreams are being indulged in as regards a railway to such a distant place as Urumchi.

Regular steamer traffic between Tokyo and Lanchow has been suggested, but so far no investigations have been made of the depth and currents of the Hang ho and in general of the conditions for the realization of such a plan. The Chinese authorities have made a first step, however, towards solving the problem by undertaking to take over a tug of 65 HP and io tons at a fixed price, if it comes safely up the river to Lanchow. But as the order has passed through the hands of a third person for safety's sake, and the latter, as I am told, has shown his hand, the boat and the advance payment, instead of coming up the river, will probably come under the hammer. This unexpected aspect of the solution of the traffic problem has so far been kept dark by Splingerdt from the mandarins, who still expect the boat to arrive in the course of the summer.

The second point of the programme, that covering the military reforms, which the Viceroy is said to have been accused of neglecting by the dreaded Yuan Shih-K'ai in Peiping is, in my opinion, the one in which the most patent results have been achieved. They are said to have been carried out immediately after the appointment of the Viceroy to his present post. He was assisted in this work by Fou Tungling, an old officer, but apparently still possessing both energy and judgment. Three ins, which were declared to be men dziun», were given the name of "tchang pei dziung», opium smokers and weaklings were discharged, a new division was introduced and they were brought up to full strength. Some officers and N.C.O's from Chihli and Hupeh trained the men according to European methods. Field exercises were carried out 6 times a year, 3 times during the st and and Chinese months and as often during the gth and roth. There do not seem to have been any tactical exercises, but only training in the same style as the parade I have described at Urum-

chi. The strict discipline and carefully superintended exercises introduced by Fou provoked dissatisfaction and there was very nearly a mutiny. The old man was so upset by this that he died. - His successor Shang, a Manchurian, is said to continue the European training very unwillingly and to be slack in maintaining discipline. Since then another "in" has been added to the others, but nothing has been done in training the troops. At first there was an instructor from Hing-anfu, reputed to have been skilful, but he is now a batband of the commander of in No. 3 and has been replaced by another, who received an imperfect training here. There are 2 or 3 soldiers in each in, trained among the Chihli troops, but the officers, with the exception of one or two, are as ignorant and careless as ever. One of the exceptions is the bambanj of the commander of the påutui in. He strikes one as intelligent and capable and was formerly trained in the army of Li-hun-tchang that was famous in its time and was trained by German instructors. Drill and education are carried on according to the old routine, target practice is neglected and there is no tactical training. By the term European drill" the Chinese here really mean slow marching, lifting their knees very high, a few manipulations with their rifles and a few changes of front in consequence of the new division of the battalions. The tchang pei dziung battalions and 2 tchi of matui (cavalry) are housed in a number of impanjes not far from the Huang ho and to the E of the NE corner of the town. Large sums have been spent on rebuilding four impanjes and furnishing them, but practically nothing has been done about securing new arms, machinery etc. Bauer, for instance, left this place after a short and, as I was told, fruitless stay. The new buildings for the arsenal and stores of ammunition and arms were unavoidable, for their former site had been leased to a cloth factory. On closer examination you really come to the same conclusion as Yuan Shih-K'ai, that very little attention has been

Antique Chinese bronze mirror from Lanchou:

devoted to the military sphere. What there is in the way of defence existed before, for the greater part.

A good deal has already been done towards fulfilling the third point of the programme, though so far everything is in the nature of preparatory work A Belgian chemist, Rob. Geerst, who has been in the service of the Viceroy for about a year, has made some investigations, both during a couple of short expeditions, one to the south of Sining, the other towards Lianchow, and by means of testing samples of minerals supplied by the authorities. These investigations are said to confirm the view that large mineral wealth lies stored in the mountains of Kan Su . Abundant supplies of coal are reported to have been found in the neighbourhood of Lanchow along the Yellow River as far as Ning siafu. It is said to be of excellent quality and to produce not more than $\%$ of ash. N of Ning siafu there are very large salt deposits in Alashan. About 130 li north of Lanchow lead, iron and sulphate of copper up to $10-15 \%$ are reported. The deposit, the depth of which is unknown, covers a circumference of 20 li. 4 days' journey $W$ of Bayenyung native copper is found in veins of $20-50 \%$. There is graphite in all the veins of coal and silver in all the lead deposits. At Hasitan there are veins of copper near Ping fan, also containing $20-50 \%$ of pure copper. S of Sining there are whole mountains of gypsum. There is naphtha ( $45 \%$ good oil and $15 \%$ kerosene) near Yumen hsien, nephrite near the Tibetan frontier and mica (?) to the south of Sining. There is a gold mine SW of Sining about 8 days' journey from Lanchow. It is estimated to yield I ounce ( $\mathrm{l} \mathrm{oz} .=28.35 \mathrm{gr}$ ) per ton. Gold is found, by the way, in almost all the rivers. Near Tsapa, S of Sining, about 5,000 workmen are employed in gold washing. It is said that in the bed of the Tatung ho 20 workmen wash 8 ounces of pure gold daily by their primitive methods and with primitive tools.

To start the exploitation of this wealth it has been decided to establish a copper mine at Hasitan near Ping fan and a gold mine SW of Sining. The machinery has been ordered in Belgium and is said to have arrived already at the western terminus of the railway.

The cloth mill is soon to be restarted. Meller, a Belgian, has been appointed manager. Both he and Geerst are paid 450 taels a month, a considerable salary according to Chinese ideas. In addition a foreman has been engaged at 300 taels a month and 2 workmen at 200 taels each, all three being Belgians. The factory area is very large and there are $20-22$ looms. A large part of the old machinery is supposed to be in usable condition. Meller has left for Belgium to buy the rest of what is needed. The mill was built 30 years ago by Germans (Saxonians) and is said to have done well, but the Germans were not allowed to run it for long. Representatives of the Chinese authorities, to whom Europeans are always an eyesore, thought themselves sufficiently clever to assume the management with the result that the mill came to a standstill in a few months and is now only used for supplying current for a few dozen electrical lamps in the houses of the Viceroy and his 3 principal assistants. This toy has pleased them so much, however, that negotiations have been started for lighting the town by electricity.

It has been decided to pave the streets, though no final agreement has been signed yet. To prevent the new paving being demolished at once by the sharp wheels of the heavily laden arbahs, vehicles with loads will no longer be allowed in the town itself, the loads being carried to their destination by prisoners. Sewers and a water supply seem to be of little interest to the authorities. They are less showy and the Taotai is afraid of the dissatisfaction of the water-carriers, if they are deprived of work. This does not actually come within the sphere of improving industry, but once I have touched on reforms in the town, I must mention the building of the bridge. A steel bridge ordered from a firm in Tientsin is just being constructed. As already stated, it is not large enough to carry railway traffic, should that be necessary. The cost amounts to 108,000 taels in addition to about 200,000 taels for transport. It is characteristic that the Taotai does not dare to impose a toll on traffic crossing the bridge.

Iron is obtained in small quantities at Fing huang shan about i 30 li N of Lanchow and is made into sheet-iron in the town. Experiments are being made on a small scale in the manufacture of candles and soap.

A sugar factory is planned in order to enable farmers to recoup their losses caused by the prohibition of opium by growing sugar beet. Experiments have been made, it is said, in the Viceroy's grounds, with very good results. Machinery is to be ordered, but so far the price is considered too high.

With regard to the fourth point, schools, it looks as though it had merely been decided what schools were to be opened and the dates, on which they were to start work. It is very difficult, of course, to form an opinion of the work done in the schools without knowing the language. But even a man who possesses a considerably better knowledge of Chinese than I evidently finds it difficult, for I visited most of the schools in the company of the Roman Catholic missionary van Dijk, and when I tried to compare my own impressions with his later, it seemed to me that his ideas were not much clearer than mine. A school of agriculture and mining has been established here, in Chinese "Nun kung hsiatang», formerly called "ta hsiao tang" or "ty yän hsiao tang". There are about 100 pupils between the ages of 16 and 30 , all of them the sons of mandarins of higher or lower rank, including
the Viceroy's son and the Fantai's nephew. In this boarding school every pupil has his own small room. Besides 2 or 3 class-rooms there is a good-sized reading room with a few books. Geerst has a large room here for his investigations. The curriculum includes Chinese, history, geography, arithmetic, geometry, chemistry, French, English, Japanese. Tibetan and gymnastics. English, for instance, is taught by a Chinese who is not particularly strong in the language, but French is taught very thoroughly by van Dijk, Tibetan by a Tibetan lama with a Chinese interpreter, chemistry by Geerst. Gymnastics are practised both with and without apparatus, of which there is far less than in some of the other schools, and with rifles. The course is said to be three years, but there does not seem to be any definite syllabus. The pupils pay 3 taels a month. The school is situated in a fairly large part of the town enclosed by a separate wall.

The place was formerly used for the examinations, now abolished, that were formerly held in the capital of each province. The centre is occupied by a high and large pagoda, where the senior examiner used to live. A complete system of long, narrow buildings, separated by lanes of about a yard, runs at right-angles to the length of the courtyard. They contain innumerable small cabins, the doors of which open on to the lanes. A crowd of as many as 3,000 candidates of all ages had to sit here and perspire over the tasks that were set them. These buildings with their narrow lanes remind one most of a brickyard in Europe. Besides this central building there are many others in this large space, some of which are let to officials as living quarters. Splingerdt, for instance, whom I have mentioned, lives here, and some of the houses are occupied by small factories, in which for the present minor experiments are being carried out by hand and various trades are taught. The scale on which manufacture is carried on, and the high cost of raw materials make the undertaking unprofitable at the moment. Nor is professional skill yet on such a level as to make it possible to compete with other countries, but the efforts at training skilled artisans and at introducing branches of industry hitherto unknown to the population, deserve recognition. The idea was the Taotai's and he does not seem to be discouraged either by criticism from his colleagues, the absence of buyers or the high prices of goods that are often of poor quality. The anxiety for self-advertisement is shown by the fact that he despatched Japanese and East-Indian goods to Peiping as samples of the products manufactured.

At present there are the following departments:
A silk weaving mill, obtaining its raw materials from Shui-chuan. About 200 kilogrammes of silk and silk velvet are manufactured yearly. There are 4 looms at work, but another 40 have been ordered from Shui-chuan. There are between io and 20 pupils. Cotton weaving is done on a rather larger scale with 32 looms and 54 pupils. $30-40$ feet are manufactured daily. A piece of 28 feet (Chinese) fetches 3,400 tchok, thin rough towelling of small size $\mathrm{I}, 600$ tchok. About a dozen pupils are engaged in carpet weaving. The weft is stronger than in Eastern Turkestan, but the designs are uglier and the carpets cannot compete in quality with the famous Ning siafu carpets. There is a furnace for glass manufacture, but only two pupils. The glass (window glass) is greenish and of poor quality. Glass to the value of about 60 taels is manufactured in 3 days. A piece $1.5 \times 1.2$ feet


Printing works of the town paper at Lanchow and staff.
costs 6oo thok. Copperwork is made, teapots and other small articles. There are 8 pupils. Various boxes are made of lacquerwork, but, of course, of a quality far inferior to the Japanese. Splendid Chinese trunks and bags are made of yak leather with large brass flaps for fitting locks, besides other leatherwork. Shoes are made of leather according to European models, but the work is coarse. Candles and soap are also manufactured.

These are about all the branches of this very curious industrial school. In its shop, very well established in a Government building in the town, I saw more delicate leatherwork, such as pockets, portfolios etc., stone inkstands for Chinese ink, army swords of bad quality in metal scabbards, a padded armchair and finally cigars made of tobacco from Shui-chuan. I did not see any workshops, however, for making these articles. The manufacture of cigars has, I hear, been given up - rather fortunately.

My description would be incomplete if I did not mention a vegetable garden, about 2 or 3 acres in extent, where agriculture is to be taught in the future. There is, of course, a large house there with a big dining room, from which the mandarins can admire the place where the future agricultural academy of Kan Su will stand some day. At present there is nothing but a badly built hothouse with 4 rosebushes and the beginnings of a zoological garden in the form of 4 yak oxen, 2 deer and a brace of grey pheasants.

For training the necessary staff of officers a school was opened here 3 years ago under the name of "Ludziun hsiao tang». Men are admitted irrespective of their social position. They are medically examined and have to pass in Chinese. The course lasts 3 years. On completing the course the pupils are sent on to a school that is being opened at Hinganfu, also with a 3 years' course. After Hing-anfu they have to study for another 3 years at a military academy in Peiping and only then are they entitled to receive commissions. 'The curriculum here appears to be the same as at Urumchi, whence graduates, contrary (1) what I was told there, will not be sent here. This information seems credible, as the

Main street of Lanchow.

schools here were furnished, opened and conducted for 2 years under the supervision of the Taotai Jang, who has now been entrusted with the same task at Urumchi. He is a graduate of the academy in Peiping and is generally respected at Lanchow. The premises of the military school are very beautiful, the large courtyards, surrounded by one-storeyed buildings, being kept tidy. Two long wings enclose a courtyard that is cut up into two or more parts by transverse buildings, a couple of which have in the course of time become two-storeyed. The transverse buildings contain large, light class-rooms and dining rooms. The furniture consists of long wooden tables in their natural colour and benches for 3 or 4 pupils. There is a raised dais for the master, with a table, chair and large blackboard. There is no heating. The walls are decorated with numerous coloured paper illustrations, mostly of a warlike nature, but also zoological and botanical, or else representing famous people, gymnastic tables, maps etc. In one of the dining rooms only episodes of the last Russo-Japanese war are depicted, in another pictures of the investment of Port Arthur and the war on land. It is scarcely necessary to add that the feats of the Japanese are depicted in not too modest a manner. In the pictures showing the different rulers of the world the Mikado or the King of England or the Emperor of China are always enthroned on a couple of armchairs, while the rulers of the great European powers stand modestly behind them and the Emperor of Russia often supports the back of the Mikado's chair. The gymnastic tables depict men in Japanese uniforms, the zoological and botanical tables have Japanese captions etc. A long paper scroll represents the greatest and most famous men of the world, quite a hundred heads in the form of medallions, six of which are of large size, with a Japanese at the top, then a Japanese and Napoleon side by side, below them Confucius and Christ, and finally another Japanese. The upper half of the small medallions consists entirely of Japanese heads, while the rest contains the philosophers, generals, statesmen etc. of other nations.

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In fact, Japanese propaganda everywhere. The long wings contain small rooms with a kang, a window, table and shelf, one for each pupil. There are 30 rooms in a wing or 60 in each courtyard. Each courtyard has its own classrooms, dining rooms and kitchen. I noticed 3 such courtyards, but I was told that the number of pupils was $200-300$, so that possibly without noticing it I may have visited more than 3, for they are so much alike. For physical training there is a large courtyard with a wall built for target practice and two excellent grounds with gymnastic apparatus of the most diverse kinds, horizontal bars, parallel bars, ladders, rings, ropes, walls, trenches and other military obstacles. Thorough instruction in gymnastics seems to be a guiding principle in the school system that is now being adopted in China. You see Japanese tables and masses of apparatus in all the schools, and gymnastics are practised very seriously by the newly organised troops. The leading men were certainly right in deciding to force fresh virility on the nation.

The number of pupils is said to exceed 200 in reality and can be increased to 300 . They are divided into about 20 "pai» of io each. On graduating they acquire the title of "san tyng tjun hsiaon and can obtain posts as gymnastic teachers in the provinces. Only the best are sent to a higher school. There are 15 masters who teach Chinese, mathematics, topography, history, geography, Japanese, gymnastics and target shooting. The pupils are divided into three categories who receive 4,3 and 2 taels monthly.

There are three schools for academic education. The principal one is next to the military school and is called »Kao teng hsiao tang». The premises are, if possible, even finer than those of the military school, though it does not possess such large training and gymnastic grounds. There is only a moderately large ground with various gymnastic apparatus. The main building, a beautiful two-storeyed house, consists of an altar in honour of Confucius, compulsory in all schools, a large class-room and a library with a great number of books in Chinese, Japanese, English and German, and even some simple Russian ones. The adjacent wings are occupied by the beginnings of small museums of anatomy, geology, zoology, botany, physics and chemistry. The majority of the objects are of Japanese origin with Japanese inscriptions, but some are German. In general the school is built on approximately the same plan as the one I have described. It was opened rather more than 3 years ago and the pupils now number about 100 out of the 120 , for whom the school was intended. On passing an examination in Chinese, anyone can be admitted. There are about io masters. I was conducted round by the headmaster, a lean man of energetic appearance, who does not teach any subject himself, his assistant, a lively young man who studied in Japan for some months, and a stout master of phlegmatic appearance. My very interesting visit was interrupted a couple of times by tea and sweets. When the school was opened, two Japanese and an interpreter were appointed as masters of natural science and physics. Apparently, they did not find favour in the eyes of the authorities, were dismissed and are reported to have taken some things belonging to the school with them on leaving. The subjects taught are Chinese, mathematics, history, geography, natural science, physics, geology, Japanese and English or Russian at the discretion of the masters. There may be some other subjects, but I was not told of them. - Pupils are paid 2 taels a month, but this is deducted for board. After a 3 years' course and after
passing an examination pupils may enter a higher school in Peiping, though a special permit for this is necessary which has not been received as yet. If they do not go to Peiping, they can be appointed as masters or as clerks in the yamen.

There are two other colleges for training teachers, opened two years ago. Juti sy fan hsiao tangy has 80 pupils and 8 professors and $\mathbf{U S u}$ tchyng sy fan hsiao tang* about roo pupils and 4 professors. Only adults are admitted and candidates must have a skongming", i.e., they must be in municipal service. The same subjects seem to be taught in both colleges, the curriculum being rather more extensive in the former, as masters for middle schools (in the "fu" towns) are trained there, while the latter only entitles graduates to masterships in the lower schools (in the "hsien力 towns). As instruction in both colleges is very similar, the difference in the education of the masters must be infinitesimal. The principal "Wang darin», a tall, elderly, serious man who also studied in Japan for several years, is at the head of both colleges. Some of the masters are said to have studied in Japan, though their studies seem to have been comparatively short. Chinese, history, geography, mathematics, natural science, topography (?), gymnastics, Japanese and English (?) are taught. The course lasts $3-4$ years, but is less extensive than in the $\|_{K a o}$ teng hsiao tang. That is what the different masters told me. Some subject may have been omitted and the information may possibly not correspond exactly to the facts. I was told, for instance, that a couple of maps on the walls had been drawn by pupils, but in one of them I recognised a good map of Tsinchow made by an elderly Christian Li-tui, who gave me Chinese lessons during my stay here, and lasked, if the pupil's name happened to be Li . This did not worry them in the least and in the evening they very kindly sent me three bad maps of Kanchow and the surrounding district, purporting to have been drawn by pupils, gummed on to yellow silk and obviously borrowed from a yamen. Tea and bad sweets are served in great quantities during such visits, but reliable information cannot be obtained with the same facility. In regard to the buildings these two schools are considerably more modest and much smaller. Here, too, Japanese pictures are displayed on all the walls.

Not much has been done yet to stamp out opium smoking. It is constantly reported that in so and so many months officials who smoke will be dismissed, soldiers will be discharged, the growing area will be restricted, shops will be closed etc., but the officials still continue to smoke with the Viceroy at their head, soldiers smoke in secret, farmers plant, merchants sell and both do their best to cheat the authorities out of their taxes. Men employed by the authorities visit the bazaars and describe the awful consequences of opium smoking in lurid terms. Notices are broadcast by the Viceroy, declaring that the consumption of opium is to cease within ten years. Europeans make fun of us, they say, because we are weakened and become effeminate by opium smoking. We must show them that we are as strong as they are. The establishment of a sugar factory is promised and by growing beet farmers will earn as much as they do now by growing opium.

While these steps are being taken to stamp out opium smoking, an office has been established, "Tu juo dsu», for planting and selling opium. Two years ago farmers paid a tax of 0.3 taels for a mou of opium. Last year an abortive attempt was made to transfer the tax to the buyer, and this year the tax has again been imposed on the land and
increased to 0.6 taels per mou. In addition 30 taels are levied on the crop, irrespective of its size. A further tax of ${ }_{115}$ taels per roo djin is imposed on opium exports. Retailers, however, who formerly paid 15 taels per 100 djin , are now entirely exempted from taxation. The present price of opium here is $0.16-0.17$ taels per liang (price in copper) or about 2.55 taels (in silver) per djin.

March 12th. Though suffering from a cold after several hours' mapping on a cold and windy day Lanchow. on the spurs of the hills near the town, I was preparing to continue my journey on the 8th, when an invitation to dine with the Viceroy forced me to postpone it again to the inth or 12th. The European colony, or rather, its Belgian representatives were being entertained to dinner and I was to share the honour. A long table had been laid in European fashion for 18 people in a temple built in honour of the former celebrated Viceroy of Kan Su, Tsuo gung pao, close to the southern gate of the fortress. The room, decorated with carpets and lanterns, looked very fine. Two rows of columns supported the roof. The back wall was semicircular and in front of the large windows there was a semicircular dais, on which small, low tables, separated by a row of red cushions and wolfskins, marked the seats. They were continued by stiff-backed chairs with red cushions standing in two rows facing each other towards the entrance. The wall by the entrance was taken up by a stage, beautifully decorated with screens, lanterns and carpets. The side walls behind the rows of columns consisted entirely of windows. Besides our small number of Europeans all the higher mandarins from the Taotai downwards had been invited. The Viceroy arrived a few minutes after everyone had assembled and was greeted with a salute of guns. With his waddling, but easy gait he passed along the row of mandarins towards us and only after shaking hands with each of us he turned with a polite ntching ngan curtsey to the deeply curtseying mandarins. I was given the seat of honour with Geerst next to me. Splingerdt was seated on the other side of Shen and van Dijk next to him. Thanks to Splingerdt's unusual gifts as an interpreter it was very easy for us to converse. The Taotai sat opposite the Viceroy at the other short end of the table. His immediate neighbours were Goldmann, Thasbart, Scalier and Coutellier.

The dinner consisted mainly of European dishes and had been prepared by Geerst's cook. The wines were supplied by Splingerdt and the tablecloths, crockery etc. by both. It is curious that there is no question of payment for these things. Shen was very talkative, but his conversation consisted chiefly of asking questions and listening attentively to the replies of others. He replied with great reserve to any questions that were put to him. He did not seem to have seen much beyond the life of the streets during his stay in Europe. In St. Petersburg he was most impressed by the clock tower of the Town Hall, by which a great many people set their watches. He had never seen the ballet and had avoided going to balls, as a lady had once expressed the wish to dance with him, a request he was unable to fulfil. He thought Russia was the home of truffles, not because everyone looked fit to look for them, but because he had eaten them there. The wine that was offered most frequently was made of turnip and had an excellent flavour. In the theatres he was most impressed by the sentries. In short, the little he said did not display any great ability on the

Dinner in Tsuo gung pao's temple at Lanchow. Infront the Viceroy Shen, on the left Splingerdt, van Dijk, the Njetai, the works mawager, the sub-prefect, Coutellier and Coldmann; on the vight the author, Gieerst. the representative of the Minister of Public Worship and Instruction, the commander of the garrison, Scalier and Thasbart.

part of the young Chinese diplomat to acquaint himself with conditions in the countries, in which he served. I must admit, however, that his opinions on political and economic matters were sound. When the railway between Hing-anfu and Lanchow was mentioned, he said with a laugh that it would not be finished for another 20 years, adding that this jest might perhaps have a serious foundation. There was much that he would like to do, but the funds at his disposal were too restricted. - He said that nobody in China had expected the Russo-Japanese war to end in the defeat of Russia. The first victories of the Japanese were explained rather as a clever surprise on their part. If there was to be war between Japan and the United States, the latter should strike now, while Japan was weak in men and money. It was impossible to foretell how the future would shape itself in the Far East. No fieldglasses enable one to see so far, he said laughingly.

Shen appeared to be blest with a good appetite and was especially fond of wine. He sat at table for five solid hours and kept swaying slightly and incessantly on his chair from right to left. A theatrical company in bright costumes amused the less talkative guests by their loud-voiced performance to the accompaniment of whining music. The free space in the room was occupied by a couple of hundred uninvited guests, who stared at the company seated at table with greater interest than at the players. However, the very interesting dinner and the draughty doors and windows gave me such a bout of neuralgia that I had to give up any idea of leaving on the following day.

I was given very conflicting information as to the population of the town: 107, 104, 70 and 30 thousand tja. My informants assured me that the two first figures were taken from

March I: the books in the yamen of the head of the district. The last figure I obtained from the Taotai who assured me that io persons should be reckoned to the tja, which would mean a population of 300,000 . All these statements seem to be exaggerated in view of the small
space occupied by the town. If we take the Taotai's figure of 30,000 tja and reckon 6 persons to the tja, the total is quite a respectable one. I think it scarcely possible that Lanchow should have a population of 500,000 (this is stated in Richard's geography in Kreitner's work). Within the town walls there are innumerable large official dwellings, about 40 temples, schools, an arsenal, a grain store, a powder factory and uninhabited shops and warehouses. There is not much space left for housing the population in one-storeyed houses.

The Lanchow fu embraces Hochow and Titao-chow and Kaolan (Lanchow) Tjin, Tsin yen and Vei yen hsien. - The Kaolan hsien has 28 Shang-ja, whose districts, population, resources and situation are approximately as follows: -

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| 7 Kuo dja ku | 6 | " | 800 | " | 120 | " | " | 300 | " | 1,000 | " |
| 8 Lidia chuang | 5 | " | 340 | " | 70 | " | " | 300 | " | 700 | " |
| NE 9 Höjen ku | 7 | " | 540 | " | 120 | " | " | 200 | " | 4-500 | " |
| ıo Njetia chuang | 7 | " | 1,000 | " | 220 | " | " | 400 | " | 1,500 | " |
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| N 12 Tasha ku | 7 | " | 540 | " | 250 | " | " | 400 | " | 700 | " |
| 13 Shy wan tchy | 7 | " | 520 | " | 220 | " | " | 500 | " | 700 | " |
| 14 Shy tung sy | 9 | " | I,800 | " | 370 | " | " | 500 | " | 7-800 | " |
| 15 Hsi kou tun | 6 | " | 240 | " | 80 | " | " | 100 | " | 3-400 | " |
| NW i6 Hsiao wan tchy | 6 | " | 1,340 | " | 210 | " | " | 500 | " | 1,000 | " |
| ${ }_{17} \mathrm{Hsi}$ lu chuang | 6 | " | 520 | " | 200 | " | " | 400 | " | 600 | " |
| WNWi8 Kuan wang miao | 5 | " | 1,300 | " | 370 | " | " | 300 | " | 6-700 | " |
| 19 Chang tja sy | 5 | " | 1,200 | " | 350 | " | " | 400 | " | 1,000 | " |
| W 20 Hsi gu cheng | 7 | " | 3,000 | " | $84^{\circ}$ | " | " | 1,000 | " | 3,000 | " |
| 21 Hsiao sy ku | 6 | " | 1,500 | " | 320 | " | " | 5-600 | * | 1,000 | " |
| 22 Kung sy ku | 3 | " | 240 | " | 70 | " | " | 200 | " | 500 | " |
| SW 23 Mutchang ku | 6 | " | $53^{\circ}$ | " | 350 | " | " | 300 | " | 300 | " |
| 24 Si ho jing | 9 | " | I,840 | " | 520 | " | " | 400 | " | 900 | " |
| 25 Shan chuangzy | 5 | " | 540 | " | 160 | " | * | 200 | " | 500 | " |
| S 26 Sung luo ku | 7 | " | 1,500 | " | 300 | " | " | 300 | " | 1,100 | " |
| 27 Tashito tsun | 5 | " | 750 | " | 200 | " | " | 300 | " | 800 | " |
| 28 Höjnju tsui | 6 | " | 1,500 | " | 180 | " | " | 180 | " | 500 | " |



The inhabitants are almost exclusively Chinese. There are Dungans only in Nanguan, 400 families; in Chang dia hangtzu $30-40$; N of the river 360 ; in Tingkuan 2,000; in U tchuen shan miao $60-70$; and in Ta hsi kuan about 2,000 , or in other words about 4-5,000 families within the town area and just outside it.

In the valley of the Hwang ho, which is well irrigated, tobacco and opium are grown principally. In the spring, opium and wheat are sown - in March. After the first harvest yellow tobacco is sown in the 6th Chinese month and green tobacco in the 7 th. The crop may be estimated at io fold. Vegetables and fruit are grown generally close to the town. Grapes, apricots, melons and peaches are said to be very fine, also vegetables. Pears grow to an enormous size, but are hard and their taste is not particularly good. There is another kind which is not large and is eaten after it has been frozen and undergone a rotting process, when it is full of juice. The Chinese make a very appetising compote of them. - Wheat, millet, tchumiza, mustard, peas, beans and barley are grown in the hills in the $S$ with the help of rainwater. There is only one crop a year there. The average crop may be put at 3-4 fold. 5-6 fold is considered a good crop. - In the hills in the $N$ wheat, millet, tchu miza, peas, tchinkho and a little mustard and oats are grown with the help of rainwater and snow. Average crop $2-3$ fold. $4-5$ fold is considered good. - The grain grown in the district is not plentiful and does not suffice for the needs of the population. The additional quantity required is bought principally from the neighbourhood of Sining. The main articles of export are opium and tobacco for hookahs - a speciality of Lanchow.

The trade of the town, which is fairly large for local conditions, consists approximately of the following goods: Green tobacco (leaf) 3 million djin representing a value of about

March ${ }_{\text {I }}$. Lanchow 380,000 taels. 37 or 38 factories manufacture it and sell 30,000 tan annually at $24-25$ taels to a value of about I million taels. It is exported chiefly to Shensi, Hankow, Shanghai, Szechwan and Jent'tai. Red tobacco (also for water-pipes) about $1,100,000$ djin. Over 30 factories with an output of 10,000 tan at $25-26$ taels. About $\mathrm{I}, 000 \tan$ are consumed
in the town. Exports to Kwantung about 2,000 tan, to Shui-chuan about 6,000 tan and the rest to other provinces. The value of the total exports is about 250,000 taels. Opium is mostly bought up by 5 big merchants. Annual quantity 4 million liang representing a value of about 450,000 taels ( 1 liang $=0.16-0.17$ taels). About 10,000 liang are consumed in the town, the rest being exported to Tientsin. Chihli, Honan etc. White cotton cloth is imported chiefly from Hupeh, a little from Shensi, 7 wholesale buyers importing about 20,000 rolls of 30 pi each annually ( 1 pi is over 20 arshins) to a value of about 28 29,000 taels. White costs $22-24$ taels per roll, green and blue 25 taels per roll. Silken cloth: over 30 shops of 3 categories. I. $5-6$ shops with an annual turnover of about 20,000 taels each; II. 15 shops of io,000 taels each; and III. io shops of 8,000 taels each. It is imported mostly from Shui-chuan, but also from Suchow, Hankow, Pien leang and other places to an annual value of $170-180,000$ taels. 18 pawnshops carry on lending business on a combined capital of $3-400,000$ taels. Average rate of interest $2 \%$ per month. Old clothes are sold in 40 shops with a combined capital of about 200,000 taels. They are bought up in pawnshops, but are also brought partly from Shui-chuan and Hupeh. Various small articles are sold in 60 shops: I. io with a capital of 10,000 taels each; II. 8,000 each; and III. 5--6,000 tacls each. The goods are imported from Kwantung, Tientsin, Honan and Hupeh. There are 4 branches of banks with connections in all the provinces. Their combined capital amounts to about I million taels The bankers themselves come from Tajuan and Tientsin. Purchase of money is carricd on by 1 Government and about 50 private offices with a combined capital of about 200,000 taels (excluding the Government office). There are 60 dispensing chemists with a combined capital of about 100,000 taels. The annual turnover in medicines is said to reach the respectable figure of about 300 tan. The surroundings of Lanchow and the neighbourhoods of Sining and Tsinchow produce many herbs used for medicines, but a good deal is also imported from Honan. Trade in salt is carried on by the Government in a large shop with $4-5$ branches and by $4-5$ private shops. The annual value is said to amount to $30-40,000$ taels. Grey salt 0.02 per djin; white 0.3 per shyn and "snow" (syö) salt 0.15 per shyn. The salt is brought from Alashan and some is exported to Kung chang fu, Ti chow and Tsinchow. Leather $50-60$ shops. Hides are bought in Hochow and Sining and cured here. About half is exported to Tientsin and Shensi. Combined capital about $100-150,000$ taels. Leather boxes made of kutes hide keep $8-9$ shops busy with a combined capital of 10,000 taels. Silver goods 40 shops with a combined capital of 80-90,000 taels. Furriers 20 shops with a combined capital of 120 -130,000 taels. Dressed furs are brought mostly from Sining and Ningsiafu. Books over ro shops with a combined capital of $70-80,000$ taels. The books are obtained mostly from Shanghai and Shensi. Oil 30 shops with $180-190,000$ taels capital. It is imported mainly from Sining, Hochow, Main, Taochow, Minchow, Tsinchow, Lianchow etc. Iron 12-13 shops with 120,000 taels capital. Imported from Hupeh, Hankow, Hing-anfu and Kalgan. Coal is mined $30-40$ li from the town. Annual consumption valued at $400-500,000$ taels. 60 merchants deal in coal. Flour is produced by 50 mills in the vicinity of the town to an annual value of $600-700,000$ taels. Brooms, baskets, spades etc. are made here on a small scale, but are mostly brought from Tsinchow. 30 shops with a capital of $20-30,000$ taels.

Seaweed and various sea produce are mostly imported from Hankow. 40 shops with 300,000 taels capital. Corn brandy is imported from Tshinchow, Fucharg, Huihsien and to some extent from Shen-si. 40 shops with ilo,000 taels capital. Meat mostly from Tsinchow and Kunghang; local supplies small. 8o shops with 200,000 taels capital. Tea (brick tea) from Honan in 8-9 Government warehouses. Annual consumption over ioo,000 taels. Wool costs 12 taels per 100 djin at Lanchow (at Urumchi 9 taels).

Russian trade has for several years been in the hands of and has been increased by the agents of the firms Ilkhamjanoff and Tchanisheff in Urumchi. In recent years competition has arisen by about 30 Sart merchants having supplied $30-50$ camel loads each of Russian goods. The first firm referred to seems to have done the most business. It has agents at Sining, Hochow, Taochow and other places and has made successful efforts to send goods to Hing-anfu and Shui-chuan. Its annual sales amount to 50,000 taels. Tea has been bought up and supplied to Urumchi. - Tchanisheff told me that in 3 years he had sold to the value of $120-130,000$ taels. Both, however, were obliged to return a considerable quantity of goods that were unsuitable for the market in Lanchow. Tchanisheff is now selling off his stock and is going to Urumchi, whence he intends to return with a fresh stock of suitable goods. The other merchants are said to sell Russian goods to a total annual value of $20-30,000$ taels. - The largest demand is for so-called $\sin$ wedish cloth", but also for ssitets" (print). For the former o. 6 taels per piece is paid at Chia yukuan, for the latter 0.2 taels in silver in mikin".

As regards imports from the east, Japanese imports are said to have increased especially in recent years. "Likin" is not paid here, but at a place not far from Hing-anfu, so that it is not booked here. Besides, the merchants do not know exactly what comes from Japan and what from other countries. The following goods are imported from the east: foreign cotton cloth, white and blue; cotton mixed with silk for coverlets, print, various small articles, toilet articles, cigarettes etc. to the value, I was told, of $500-600,000$ taels a year.

The town boasts a decently clad and fairly numerous police force. This was formed during the time of the present Viceroy. Very simple glass lanterns fixed to the walls of houses here and there are also an innovation. For the care of the poor there is a building with 2 departments for men and one for women, where poor people can find shelter. 10-15 people are lodged in a fairly small room. A small quantity of coal is supplied free of charge for heating the kang. Besides, a pair of warm trousers and a warm coat are given every winter to each of the poor. For medical care the caretakers are given a sum of 2 million tchok monthly. The number of the poor is uncertain and varies between 200 and 300 . Both here and in 4 other places in the town free food is provided from the $1 / 11$ to the $15 / 1$. Adults are given $\mathrm{I}_{\mathrm{I}} / 2$ djin of pea-flour for 3 days, children 1 djin. During the New Year celebrations wheaten flour is distributed, irrespective of the recipient's age, at the rate of 2 djin for 3 days.

## Temples in Lanchow:

In the W of the town Chuang yen sy miao in honour of San ta shy, built during the time of the Emperor Yän tchau and rebuilt under Ta Ming.

N of the kulo tower Cheng huang miao, built under Yuan tchau Ming chang (people who die fall into the power of Cheng huang).

Outside the fortress on the bank of the river Yen kung sy, an old temple, rebuilt under Toguang.

In the E part of the fortress Le tsu miao to the god of thunder, built under the Emperor Kangsi.

In the E part of the fortress Tung yeh miao during the time of Ta ming Tja kin.
In the E part of the fortress Huo shen miao, the god of fire, Built? Rebuilt under the same Tja kin.

In the SE part of the fortress Pu tchao sy to the honour of San ta shy, built under Yän tchau; rebuilt in the third year of Mingtcha Tjenshun.

In the N part of Tung Kuan Sjung jyn sy, built under Toguang
" " " " " " " Lao je miao, built?, rebuilt under Tja Kin.
Near the bridge over the Hwang ho Lao je miao, built?, rebuilt under Tja Kin.
In the $S$ part of the outer town Kuang $f u$ sy to the honour of Kuang Lao yeh and others, built? rebuilt under Toguang.

In the fortress near the E gate Thai pei tung, built?, rebuilt under Cheng lung.

March 17th. Kut'an village.

I had sent my luggage by the main road to Si -an-fu and decided to travel by Hochow and the Tibetan monastery Labrang. I should have left yesterday, but had to wait another day as the horses that had been promised for my luggage did not turn up until 2 p.m. It is gradually becoming a habit of mine to leave, after a stay of some considerable time, a day later than was fixed for departure. At any rate the men were actually ready by the time finally decided on and the last arrangements could be made without hurrying.

I employed the day in checking various information collected at Lanchow and rearranging some material I had got together. As I was taking a last walk through the town and was once more annoyed by the horrible paving, a stranger begged me to come and look at some old bronzes. My luggage was already packed, but I followed him out of curiosity, inwardly resolved not to buy anything. Some of the objects were old friends, bronzes that I had seen at van Dijk's, who had allowed quite an exhibition to be collected at his house in order to help me. One of the things I saw again was a large dish with a bas relief running round $i t$, for which $I$ had in vain offered 50 taels through van Dijk's servant. Now, however, the price had been screwed up from 130 to 160 taels. Apparently keen to sell, the wily merchant began to bargain, to my great surprise, in spite of my only offering him 30 taels on the pretext of my cases being packed already. It ended in his accepting my offer with a disappointed air - an excellent illustration of Chinese trading, in which prices rise and fall as on the stock exchange according to the demand and the prospects of being able to sell. He grew quite desperate when I made him come with me to van Dijk's to weigh my silver. He made me promise to say that the price was 80 taels to save his
reputation as a merchant - a promise which, of course, I faithfully kept. It was a real pleasure to see the surprise of van Dijk and his faithful servant at my having succeeded, where they had failed, and to listen to the lying explanations of the merchant.

During the night a thermometer was stolen that had been hanging in the yard of the sarai throughout my stay. As it was the last I had, this was a nuisance. I sent for the innkeeper, who was responsible for all thefts perpetrated on his premises according to Chinese law, and threatened to shoot him if the thermometer was not found within the hour. The time came to an end, but no thermometer was forthcoming, so I had my horses brought out and told the hypocritical old fox that I was leaving in a quarter of an hour and would not pay a tchok if the instrument was not found. This worked better and in five minutes it was produced, the old fellow was paid and we parted friends.

Two roads lead from Lanchow to Hochow. One is an arbah road which makes a détour via Anting hsien, Tang-chia-pu and the Media ho. It was said to be 210 li and could be traversed in 4 days. The other road, I was told, went fairly straight in a SW direction and led across the mountains $S$ of the valley of the Hwang ho. I chose the latter as being more interesting and not so well known. Just outside the W gate of the outer town we crossed the Lui t'ang ho, a small tributary of the Hwang ho. It came from the south along a valley between the hill with the four bastion-like towers SW of Lanchow and the former Manchurian fortress, and intersected the $W$ suburb. W of this valley, which is barely $2 / 3$ of a mile long, there are well tilled fields close to the town, with fruit-trees scattered about them, and fairly densely populated. They form a belt, a mile or two in width, between the Hwang ho and the hills in the $S$. A mile and a half from the town we reached the first of the hills after crossing an appreciable cleft, with steep sides, at their foot. We rode up the hills along another hollow. Our course, which had been W so far, now became more and more SW and SSW. Soon we came to a plateau intersected by several ravines. There was a Chinese cemetery on this. Its uniform small yellowish-grey mounds were relieved here and there by a memorial arch or a tall stone slab with a longish inscription. On the left, i.e. in the S, a chain of hills, which had opened SW of Lanchow to make room for a broad cleft, continued in an unbroken row in a W and WNW direction. They formed a fairly large mass of high ridges with a slightly dominating mountain here and there - all bare and grey with soft, curved outlines. As far as we could see, except during the rare moments, when we caught a glimpse of the Hwang ho, the same grey plateau-like hills, intersected by deep ravines, gradually led up to the mountains in the $S$. In the $N$ the valley was shut in by similar hills that seemed in the W to run into those on our left. Looking back, we saw that the same grey ridges had closed up the valley in the E , too. There were no trees or bushes anywhere.

Having crossed the plateau we descended into a valley with a couple of houses and a few patches of field and trees. The dry bed of a river wound southward at its bottom. The valley was soon left behind and we followed another ravine with almost perpendicular sides that led us up to the hills. We climbed up the mountains gradually along the deep sunken road. At short intervals we passed 3 small villages, Hsitin, Gandia ing with 20 houses and Dj ang dawan. The cultivation of the fields is entirely dependent on rainwater here.

Peas and wheat are grown and the crop was said to be no more than twofold! From the last village the ascent became steep, in some places very steep. After a climb of $\mathrm{I}_{1 / 2}$ miles along a zigzag road we reached the highest point, a ridge overshadowed by a high mountain immediately on the right and others further off on the left. Its name was given as Tien-shan-tzu (Tien == bow), but whether the Chinese simply call the mountain by the name of a small village just beyond or vice versa, I cannot tell. 'The barometer indicated an ascent of about $\mathrm{I}, \mathrm{I}$ oo metres in about 12 miles, a large part of which was over level ground.

A very wide view was unfolded from the mountain. The landscape that spread out northward at our feet was in the nature of a great number of gigantic tongues, the main direction of which was $\mathrm{S}-\mathrm{N}$, divided by deep clefts. They fell in large terraced stairs to the north and towards the clefts. There were some tilled areas on these very level terraces. On the slopes we could see a couple of small villages, but even these did not relieve the monotonous yellowish-grey colour. In the S, SE and SW there was nothing visible but mountains and deep clefts either higher or as high as the one on which we stood. None of them reach the snowline, although some of them were covered with snow just now. The main direction seemed to be $\mathrm{E}-\mathrm{W}$. A village of about a dozen small huts stood on the mountain at about the same height as the highest point that we had passed.

The very steep descent was also along a narrow and slippery ledge. Slipping and sliding, we clambered down into a deep valley and then again halfway up along the steep slope of a spur of rock. From this we finally reached the bottom of another big valley which we followed for the rest of the day's journey, i.e. for 2 or 3 miles. A frozen river, a couple of yards wide, wound eastward along the bottom. Having covered about 16 miles we came to the little village of Kut'an at a place, where the cleft grew slightly wider. The village contains ${ }_{1} 4$ houses. The inhabitants were very inquisitive, but friendly and obliging. All were Chinese. Peas, oats, barley, tchumiza, and potatoes are grown, potatoes being the principal food of the local people. All the tillage was dependent upon the rainfall. The average crop was said to be 6 fold. There are no burans, but strong SW winds are common, especially in spring. Snow falls between the 8 th and 4 th Chinese months, but seldom remains on the ground.

March 18th.

## Tang wang

 village.A slight fall of snow began in the evening and continued throughout the night and to-day until soon after midday. The country again looked quite wintry when we started and the snowstorm prevented our seeing much of the surrounding mountains. We continued along the same valley which now proceeded in a direction due south. Scarcely $1 / 3$ of a mile from the village the lowest spurs of the mountains ran into each other and for about $2 / 3$ of a mile we once more went along a narrow cleft that led up towards the slope of the mountain. In the $S$ the mountains enclosing the valley on two sides joined each other. After a short, but steep ascent we reached their summit here at a point slightly lower than the mountains in the $E$. We were now about 150 metres higher than at the top of the Tien-shan-tzu mountain. Unfortunately, the snowstorm prevented us from establishing our position in the maze of mountains that surrounded us. On the right, two narrow and deep valleys opened up towards the W. Skirting these,
the road took us in sharp curves along a very steep slope down into a third, also running westward. A river bed wound at the bottom, crossed by a strong bridge built of stone. After creeping round another spur of the mountains in the $\mathbf{W}$ the road crossed another cleft with a river bed, over which a bridge was built. $S$ of it the ascent begins to a considerable spur of mountain and it was only after riding round this that the final descent began, very prolonged without being particularly steep. On the way we passed the village of Hochow-Shan with a dozen houses, and at a distance of $11 / 2$ miles to the $\mathbf{E}$ we saw another, slightly larger village. The rock was often denuded on the mountains and the ground began to be stony and a mixture of stone and gravel. Some time later we reached a dry stony river bed, about io fathoms wide, Nan ping ho (a tributary of the Tao ho) as the Chinese called it. It has a narrow passage between the mountains. We followed its bed for about 2 miles in a SW direction, when we left it and the road went up the high-lying left bank. Here stood the village of Nan ping with 30 houses and a couple of shops. Its fields extended in a SW direction and ploughing was in full swing. Horses appeared to be used more than oxen. I was told that about a dozen landowners had no draught-animals and were obliged to hire them. The cultivated belt, about $2 / 3$ of a mile in width, was cut short about 2 miles from the village by the mountains which ran into each other and left a cleft between them with a dry river bed which we followed. This led us out to the broad bed of the Tao ho. At the point where the road debouched into its valley, we passed the village of Vandja with 5 houses. For about $2 / 3$ of a mile we rode against the course of the river until we reached a ferry at the foot of a steep hill.

There was a steep descent to the ferry which was worked by a rope stretched across the river, the width of which was $200-250$ fathoms here. On the opposite bank there was a flat belt, well tilled and about $1 / 3$ of a mile broad. A road flanked by trees led us to the village of Tang wang at the foot of the mountain. The village looked rather like a small town, as it was enclosed by a wall. The population is reckoned to be over 400 tia. Wheat, barley, beans, tchinkho, tchumiza, millet and some peas, opium and fruit are grown. The average crop is 5 fold. There are no burans, but strong SW winds. Snow between the 1 th and ard Chinese months, but it is rare and does not lie. Rain in the $4^{\text {th }}-5^{\text {th }}$ months. - According to my map the distance covered today was $12-13$ miles, but should be considered about 16 miles, as the map does not allow for the numerous bends of the road.

We left this morning in beautiful weather, quite springlike. Immediately to the SW of the village we climbed a very steep and tiring ascent to the summit of the mountain chain that closed the valley of the Tao ho in the S . Ignoring the innumerable curves of the road, we climbed for 3 miles without a break. With the exception of a couple of short intervals the road was very steep, the rise during the first couple of miles being about 600 metres. It runs almost all the time along a ledge, a couple of arshins in width, and after rain, when the ground is as slippery as clay, it must be as impossible to walk on as the glass mountain of the fairytale. On the mountain a view is unfolded like the one from the Tien-shan-tzu mountain, but much larger. It is also more beautiful, for the valley of the Tao ho, well tilled and populated and with fruit-trees scattered over it, lies at the very foot of the
mountain, the broad, yellowish-brown ribbon of the river winding through it. On the other side there was an endless mass of mountains, some higher, some lower, the yellow ridges of which, separated by deep valleys, rise up in a perfect jumble in almost every direction. Looking eastward you see the same picture, though its beauty is enhanced by a white-clad mountain ridge outlined in the distance. The road, leading to the SW, ran along the ridge of the mountain we had climbed, winding round a mountain peak here and there. There was a deep valley on either side, into which the slopes descended at times steeply, at others in innumerable small terraces. Across the valley there were exactly similar ridges, among which a peak rose occasionally to a greater height. The highest point is often decked with a single tree - frequently the only one visible for a great distance. There were clefts or valleys cverywhere with sides steeply inclined or descending in terraces. There was something indescribably desolate and monotonous in this greyishyellow landscape. You could almost imagine that you were riding up the crests of an uninhabited desert. And yet you discover a little village here and there either at the bottom of a valley or on a small terrace halfway up a mountain or else high up on its crest. Their walls and houses, built of the same earth, are so like their surroundings in colour that they do not strike the eye at once, especially as they are often not marked by a single tree. Their numbers increased, however, as we went on and the whole of this inhospitable desert proved to be full of life on closer inspection. The majority of the terraces were well tilled small fields that must give a smiling appearance to the landscape later in the spring or in the early summer, when everything turns green. Some of the hills are decorated with mazar-like buildings or mounds with poles stuck into them and bits of cloth attached. Some of the villages further on gladdened our eyes with a few planted trees.

After a few hours' ride in these yellow surroundings the observer's demands become uncommonly modest. The houses are small and mostly built on narrow strips of ground. Such villages ascend the slopes in series of small steps. A large part of the population simply dig caves in the steep sides of the mountains and build a protecting clay wall that shuts off a small enclosure before the entrance. During the day we passed no less than seven such villages. All of them were small, the largest, Tavanthu, consisting of 40 houses scattered in various groups. I also saw a number of other small villages on either side of the road with innumerable roads, or rather paths, from one village to another.

The inhabitants are exclusively Dungans. They are easily recognisable by their thin skull-caps, white and black, of a peculiar shape with slightly projecting corners. The women have the small, maimed feet of the Chinese women, but do their hair in a large fringe falling from left to right half over the forehead. They wear a large white cloth round their heads. Otherwise both the men and the women wear the ordinary Chinese dress. Both old and young have the typical Mongolian fold of the eyelid. Their hair is black, and their eyes are either black or in any case very dark. They look good-humoured, the older people in particular appearing to be friendly disposed towards foreigners.

The road and the landscape did not vary in character during the day. We reached the village of Sonanpa after a ride of about 16 miles ( $13-14$ miles on my map). It contained about 100 houses, of which only 14 were inhabited by Chinese. The livestock was said to

amount to about 200 donkeys and mules and about 300 goats and sheep. There were very few horses and cattle. Altogether the population here appeared we boor. At Tavanthu, I was told, over $50 \%$ did not possess any cattle at all, and at Ching-ho and Sonampa half the population is said to be in the same miserable condition. Wheat, barley, tchinkho, beans, tchumiza, potatoes and some fruit are grown and the yield, formerly 7 fold, is said to have fallen off to 4 fold in recent years. - The soil was exhausted and had often to be changed. I was informed that there were no burans. The prevalent wind was $W$, but $E$ winds were also common. Snow falls between the 9 th and 3 rd Chinese months, and remains on the ground until New Year. Rain falls between the $4^{\text {th }}$ and $9^{t h}$ months, but is rare. A shoo ( 40 men ) of matui of the Hochow garrison was quartered in a small impanj. It was commanded by a juti Ma, a Dungan, like all his men.

The journey today was of exactly the same character as yesterday, only the gorges were less steep and there were more trees in the villages and on the summits of the hills. 'The white-clad range of mountains that was visible from the time we climbed the hills at Tang wang chen, grew clearer and clearer. It was not only that we had drawn nearer to it, but there were no such high mountains between us and the range to obscure it. The soil had a reddish tinge, which became more pronounced the further we rode. Rifts in the ground showed us that it was especially the lower strata that were of this colour, which enhanced the beauty of the landscape. On some of the slopes and uncultivated terraces we could see the remains of last year's grass. I was told that most of the slopes were green
in the summer, though this can scarcely refer to any except the slopes close to Hochow, as further north-east there is not the slightest trace of grass.

In about 6 miles we reached the village of Liushihwan with 17 houses, two-thirds of the population being Chinese and one-third Dungan. A mile or two beyond it the descent became very abrupt, though not quite so steep as at the village of Tang wang chuen. The broad valley of the river Takiasa ho lay at the foot of the hill. A few miles to the south it appeared to be cut in two by a hill of soft earth which divided it into two arms. The outline of the dark fortress wall of Hochow stood out at about the level of this fork. The river describes a wide curve and after approaching to about $30^{\circ}$, it was seen to disappear at $14^{\circ}$. The snow-clad mountains make a curve E, S and SW of Hochow. They kept on growing lower and seemed to merge into the horizon in a direction of approximately $40^{\circ}$. Their name was given as Teidz shan in the east and Tivo shan further to the SW. In a direction of $137^{\circ}$ another snow-capped mountain was visible apparently in a SE-NW direction. It was faintly discernible in the distance. A large and very steep slope ascended the other side of the valley. The whole area between these mountains was cultivated and there were well tilled and cleared fields as far as one could see. There were quite 20 small villages down in the valley. After a violent descent and after crossing two small rivers coming from the SE with reddish-brown water like rust owing to its being impregnated with particles of the red soil, we reached the river and crossed a wooden bridge built in the shape of an archer's bow. A few more miles across the plain, where sowing and ploughing were in full swing, and we found ourselves inside the dilapidated walls of Hochow. The distance covered to-day was about 14 - 15 miles.

March 2Ist.
The Chinese town is quite $2 / 3$ of a mile from N to S and half a mile from E to W . It lies Hochow. about $2 / 3$ of a mile from the very high slope that bounds the valley in the N . The old and very dilapidated wall is of brick, about 6 fathoms in height and has many bastions. The gates are protected in the usual manner and face $\mathrm{W}, \mathrm{S}$ and E . The space within the wall is sparsely populated. There are no old temples or other picturesque buildings, only a short piece of the main street making a livelier impression, though even there the shops are very poorly stocked. The $S$ wall and SW corner of the town wall are surrounded by the Dungan suburb, where there is much more life and movement. It is reached by crossing a wooden bridge over a canal of decent width, dug from the river. A couple of evil-smelling restaurants housed in box-like wooden pagodas are half-suspended over the brown water. The bazaar street is thickly strewn with small stands on tables, trays or simply on a bit of rough cloth spread out on the ground. A forest of square white sunshades stretched over long poles almost closes the road to horsemen, as they are thrust at a sharp angle into holes, but willing hands lift them out of the way without waiting to be asked to do so. You see about as many Chinese as Dungans in their characteristic black and white caps. Occasionally you see a lama in red and yellow garb.

A person of no little importance, the Tungling Ma-ga-lian, occupies a modest house in the middle of the suburb. He has the rank of a Chinese general and gained it under the command of the celebrated Boxer leader Tung fusien on the field of battle. In suppressing

the Dungan revolt his energy and severity gained him considerable renown. Though himself of Dungan origin, he was placed here by the Chinese Government to prevent any disturbances among his countrymen, among whom his name alone is said to be sufficient to instil terror and aversion. I called on the general and cannot deny that he made an impression on me. On hearing that he intended to go into the country on the morning aftet my arrival, I sent him my card at $7.30 \mathrm{a} . \mathrm{m}$. At the first glance I lailed to realise that the young man with a youthful figure who came to meet me with buoyant gait was the warrior of 60, of whom I had heard at Lanchow. He had not a single grey hair, but at close quarters the many wrinkles in his face showed that he had left his youth far behind him. His sharp features looked well under the black turban-like head-cloth of the Chinese soldier with one corner hanging behind the left ear. He had a curious habit of staring straight at you, as though trying to pierce your most secret thoughts. From time to time he would seem to be dreaming with a melancholy look in his fine, dark eyes, and when roused from his thoughts, he answered with a winning smile, as if apologising for his absence of mind. There was something quite unlike the Chinese about him and it almost offended your car, when he used the expression „uomen chunguorin» (we Chinese); one would have expected him to say "we Turks" or "we Arabs". What thoughts constantly lure him away from reality? He looks as though he had both brains and energy, a man who would be in his right place leading an insurgent Dungan army rather than acting as a servile watchdog of Chinese interests and taking Chinese orders. It is strange that the Chinese so easily find men to
undertake the contemptible part of a renegade. He looked at my rifles with great interest and showed me some of his own. One glance at their condition convinced me that I was in the presence of a man who loved weapons. He said with a sad smile: „The Europeans only sell us what they consider useless in their own country." Unfortunately, my acquaintance with Ma-ga-lian was confined to this one call. It would have been interesting to get to know him better.

Hochow is said to have suffered badly during the last Dungan revolt. There are no old relics in the Chinese town and there are still many ruined houses in the Dungan suburb. I visited a couple of mosques that must have been some two hundred years old to judge by their exterior. Their architecture reminded me very much of the old mosque I saw at Qulja, a highly concentrated collection of buildings erected in the Chinese style and surrounded by a wall. In the outer courtyard there is a picturesque tower of two storeys of wooden latticework, on the right of the entrance. It is difficult to decide from its exterior whether it is a Chinese temple or a Mohammedan mosque. Inside there is a large, bare hall with some paper lanterns hanging from the ceiling and some wall-paintings in the Arabic style or inscriptions in Turkish. At a short distance from the entrance door is a big wooden board ornamented in gilt with the name of the Chinese Bogdykhan in large characters facing the door. According to Chinese ideas this means that the people assemble in the temple to offer up prayers for the wellbeing of the Bogdykhan. This constant reminder of the Chinese yoke can scarcely be a source of delight to the Dungans. In one of the temples, I met about a dozen ancient patriarchs. To say their prayers they had put on white turbans, which gave them a confusing likeness to Sarts in Chinese or Russian Turkestan. At the first glance I mistook them for Sarts and wondered where so many of them could have come from. But a look at the rest of their Chinese dress convinced me that I was wrong. Almost all the children and young people have a fold that covers or half-covers the corner of their eyes.

I called on a couple of old mullahs, who received me in very friendly fashion. It seemed to me that a European was generally received better and with greater trust by Dungans than by Chinese. It is vouched for as a fact that during the last revolt a crucifix in a house was sufficient to induce the Dungans to spare it. Caution, coupled with fear of strength and power, is a characteristic quality of the Asiatics. It was impossible to get the old men to talk politics or relate details of the rising. If I had had more time and a better interpreter, things might have been different, perhaps, but as it was I had to be content with meaning looks and evasive answers. It is evident that strong hatred rankles in the hearts of the older generation, at any rate. The police of the Chinese seem to aim at avoiding conflict as far as possible. They appear to reckon with the Dungan element, however, for the latter are treated kindly and are even placed at the head of troops in districts with a numerous Dungan population. Ma-ga-lian has several tchi of matui under his command, recruited entirely among the Dungans, but in addition to his military duties he has been instructed to try to pacify the population which, in a manner of speaking, is under his guardianship. He does not act as a judge, however, and in spite of his military power a Djentai is resident in Hochow who has numerous garrisons under his command, mostly tchyping, quartered in all places of any importance. In Sining another

general Ma holds the post of Djentai, and Ma tidu at Kanchow, also a Mohammedan, is the commander-in-chief in Northern Kan Su.

The mullahs were of the opinion that the Dungans were originally Turks who had emigrated from Turkey to China at the instigation of the Emperor Tang. T'hey had not seen any old documents concerning this episode in their history, but said that it was dealt with in a Chinese book entitled "Tang wang chien». Like other Mohammedans, they make pilgrimages to Mecca and a "hadji», a man who has made the pilgrimage, is highly respected among them. Religious instruction is given in Turkish. - I met two Turkish merchants in Hochow. They could speak a few words of various languages, but they were unable to understand me when I spoke Chinese, Kirghiz, Russian or English. They have to employ a mullah as interpreter in order to do business.

The Djentai at Hochow, a friendly old man of 68 from Szechwan, has many scars, like most of the older Chinese warriors. A bullet struck him on the temple just above his eye during the Dungan rising and came out through his lower jaw on the other side. These frequent wounds show that the Chinese who adopts war as a profession, not only can be, but often is brave. He showed me some very badly kept types of rifles, including a Mauser made by an armourer in Hochow. I need scarcely mention what is was worth. The old fellow thought it was throwing away money to buy arms and machinery in Europe, as they could not be kept in condition in China and very soon became useless.

Ma-ga-lian told me that he was not sure of the number of Dungans in the Hochow district, nor whether they were more numerous there than in the neighbourhood of Sining. He estimated their farming population at not less than $60,000 \mathrm{tja}$. The district mandarin placed the total population at about 300,000 (tja?) and considered that $50 \%$ were Chinese. The information that a Chinese in my service obtained at Lanchow is as follows, though I consider that it is greatly exaggerated and that the figures for taxes and crops are not in a normal proportion to each other.

The Hochow district is said to be divided into the following in tchi for purposes of taxation, each one being administered by a Shang-ja with a crowd of lower officials under him for the different villages.


The annual tax levied in the district is said to amount to $23,000-24,000 \tan$ of grain and 14,000 taels of silver. 100,000 tan of grain are constantly kept in store. The amount of the tax appears to be correct. According to the statement of the jai, about 23 per cent of the sowings are levied in tax. If the crop is estimated at 5 in the $N$, io in the $S$, 4 in the W and 3 in the E , the average crop should be 5 fold. The harvest would then be about 24 times the size of the tax. - The stock of cattle seems to be exaggerated. About $50 \%$ of the population are said to possess no cattle. The rest, it is true, have a very varying stock, but there are no large herds. - Judging by what I saw, the number of inhabitants seems to be exaggerated. The town population is stated to be $1,180 \mathrm{tja}$ in the Chinese town and $70-80,000$ inhabitants (almost exclusively Dungans) in the suburb. The latter contains 12 mosques.

The district sells oil, grain, cattle mostly from the neighbourhood of the Labrang monastery in Tibet, raw hides from the neighbourhood of Labrang and Sining, and hemp. Tchinkho, beans, ymei (?), oats and a little wheat are grown in the mountains; tchinkho, beans, wheat, peas in the plain, and millet, tchumiza and some opium in the N .

Hochow is connected by arbah roads with:
Lanchowacross the Media ho, Tantopu and Agansien, 4 days 210 li; Titao-chow across the Media ho, and Sindia pu, 210 li , and Taochow.

By mountain roads with:
Titao-chow over Matjali, Lianghua shan, Kang ku, Jang shan, Syön hua pu, 3 days; Sining over Handjati, Tchita pu, Sunhua ting, Lamu, Bajansjung zapa and Sinchuang; with Lanchow 3 days; Taochow over Tchoku; Sasuma 7 days; Minchow over Tchoku, Sasuma, Labrang.

After staying a day in Hochow and hiring mules for my luggage as far as Labrang, we were rather delayed in starting this morning as 2 cavalrymen, whom Ma-ga-lian had placed at my disposal, did not turn up at the appointed time. One of them had a fine carbine Suhl -95, but only io cartridges, the other a carbine Spencer -65 with 15 cartridges. As the district round Labrang was said to be very unsafe and I had 4 good rifles and plenty of cartridges, indeed, but only myself and Lukanin could handle a rifle, I told them to go and ask for another 20 cartridges each. One of them replied that no more than 10 cartridges were to be had for the Suhl carbine, but that a further supply could be obtained for the other one. However, this also proved unobtainable - the keys of the arsenal had departed with Ma-ga-lian for a month's stay in the country. However, the Djentai sent me a further guard consisting of two old tchyping soldiers armed with enormous swords which they carried over their shoulders and which served as excellent hangers for various pieces of clothing that would be considered superfluous in the equipment of a warrior in most countries. In their belts they carried dainty little cases for the pieces of paper, cut in the shape of a lampshade, which were to be stuck under their caps to protect their eyes, spectacle cases, the size of which must have helped to enhance their social position, long pipes, tobacco pouches and some other odds and ends. Their duty consisted in accompanying me on foot and they were to be relieved by other men at every post we passed. -The district mandarin considered that my rank and dignity required that I should be accompanied by two "jais", a kind of menial whose cast was considered one of the few in democratic China to be unworthy of enjoying the privileges of citizenship. A descendant of a jai or a "tsei rin", as he is said to be called officially, may not occupy the post of a mandarin. Hairdressers, actors and eunuchs are supposed to be in the same position. 5 pack animals with 3 men and a litter with 2 mule drivers increased my staff and at the same time the disorder in my little expedition.

The weather was beautiful - real summer according to our northern ideas. The road led at a distance of about $2 / 3$ of a mile from a river against the current in a SW direction. There were hills and mountains on the other side and on the right, at a distance of a mile or two, a huge perpendicular eminence which grew more and more mountainous the further


Brass case containing paintings of Buddha
etc., worn round the neck. From the
Hochow-Labrang section.
we went until it finally became a chain of mountains of soft outline. In the far distance in front of us the valley was shut in by hills, beyond which we could see the white-clad range that we had seen far off from Tang wang chuen shining in the dazzling sun. The local people call its left part Teidzeshan and the part further on the right Tardia shan.

The district was well cultivated in all directions. Ploughing and sowing were in full swing. Busy yokels could be seen working with a will everywhere. A blue-clad Chinese or Dungan, often naked to the waist and wearing an enormous straw hat without a crown and with a slightly sloping brim, followed the plough. His better half followed him on her tiny feet, scattering seed in the furrows. Most of these women wore gaudy colours and their short dresses were decorated with bright ribbons. Others were harrowing with harrows made of woven twigs, while others again simply stood and pounded the earth with narrow wooden clubs. The ploughs have two small blades placed at a short distance from each other in the opposite direction to the one taken by the plough. Up in the hills and in the neighbourhood of Lanchow I saw a similar plough being used in combination with a sowing machine. A divided wooden funnel was placed above the plough. There was a slit in its lower edge at the back and a peg in it, fastened to the bottom of the funnel. A stone was

## Painting of Buddha in metal frame.

 worn on the breast. From the

Hochow-Labrang section.
hung on the outer end of the peg which made the peg move in a horizontal position with the movement of the plough and this ejected the seed. The latter slid along two hollowed bits of wood and fell into the ground behind the blade of the plough into the furrow. The ploughing was quite superficial. The ploughs are drawn by a pair of donkeys, a donkey and an ox, a couple of oxen or horses, in fact, you see almost every imaginable combination except birds. And yet birds could do almost as much work, the cattle are so miserable. The oxen are of the same size as the donkeys, ie. about the size of a calf.

We passed a great many villages in the valley at various distances from the road. There were very few single houses between the close groups of buildings. The valley grew rather narrower and the road came much closer to the hills on the right. After passing two small villages, Sungtja dsjuang and Tchingtja dsjuang, lying next to each other, we reached the foot of these hills about 14 miles from Hochow. We crossed a small river coming from the $W$ and rode through a larger village, Fangtchyng. The country now became mountainous. The river was formed here by branches of the Hued fug guan ho from the ESE, the Teisha ho from the SW and the Lova guan ho from the NW. This was the direction that could be observed from the road; on the 40 verst map the course of the last river is westerly. Nor do the names I have given correspond to those on the map. Two wedgeshaped and rather steep hills forced their way between these three branches of the river. A Chinese temple decorated the summit of each. The road followed the middle branch, Teisha or Labrang ho, as it is also called. We crossed the river, which is about 8 fathoms


Young Tibetan women at work in the cillage of Vangathan. about 70 li $N$ of Labrang.
wide and has a swilt current, by a high and rickety bridge. The water is said to cover a small horse. The hills retreated again and we proceeded along a comparatively broad river valley. The ground was rather stony, but still cultivated, although the villages were smaller and looked poorer. The rise in the ground was almost imperceptible. We passed through 5) small villages and encamped in Shui-tan-pu thi after crossing the Tuo tchi pa ho, a tributary of the Teisha ho, a mile or two back. Half of the large, open cottage was arranged as a stable and the other half contained a kang large enough for 8 people in a row. There was room for all there, men, animals, litter, luggage and kitchen. The sky had become overcast and it was windy and cold in the evening, so that one did not object to having as much animal warmth as possible indoors. The distance covered during the day was about 20 miles. During the latter part of the journey I had a bad bout of rheumatism, all the more unwelcome, as it was important to keep in good condition now. - Shui-tanpu tchi consists of about 40 houses, not quite 20 of which are Chinese, the rest Dungan. 20 horses, 12 mules, 100 donkeys, 60 oxen. Burans in spring from the E and especially from the W. Rain is rare, though the tillage depends mostly on rain. Snow from the roth to the 3 rd or $4^{\text {th }}$ month. Wheat, tchinkho, barley, beans and peas are grown. The crop is + fold.

March 2 grd. It was a grey morning and so cold that we had to put on our fur coats, felt boots, fur Tchogu village. caps and gloves. The valley came to an end just $S$ of Shui-tan-pu tchi and the mountains converged, leaving a gorge of only $2-300 \mathrm{~m}$ in width between them, through which the Teisha ho wound. The mountains forming the gorge were so high that the Teidze and Tardia shan were no longer visible. Scarcely $1 / 3$ of a mile from the village we passed a bridge leading across the river. On the opposite side lies the village of Kuan tang, also called Kuan ming on account of a large stone gate that, as it were, closes the entrance

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to the gorge. The journey procecded as usual along these mountain gorges or narrow valleys in the mountains. At times the road runs along the bank of a river, at others it goes along a narrow ledge that creeps a few fathoms upward and leads round some projecting, more or less steep mountain. There is nothing breakneck about it, however. The ledges are often very narrow, stony and occasionally poorly strengthened with plaited twigs. The ascents and descents are fairly steep. On the whole the road is quite passable for caravans. We met quite a number of animals laden with different kinds of goods going to Labrang or coming from it, mostly with hides. Fields had bcen ploughed and a few houses appeared almost everywhere, where the mountains retreated from the river. The inhabitants were now almost entirely Tanguts. Dungans are only seen in exceptional cases. Here, too, energetic work was going on in the fields, but the labourers were mostly women. You see them striding about with heavy manly steps in their sheepskin coats edged with red and hitched up high. The furs are worn thrown off the right shoulder, so that their arms and breasts are bare. They wear blue or black caps on the backs of their heads, shaped like a sugar-loaf and with thick trimming at the bottom. Their feet are enveloped in rough leather shoes with leggings of red cloth reaching almost to their knces. But their way of doing their hair is the most curious feature. It is plaited into a number of little rats' tails, to the ends of which they fasten an embroidered broad bit of red cloth decorated with white buttons, large shells, copper discs etc. Many of them wear a long, roll-shaped massive plait of two bunches of red and green threads hanging down close to the ground. It is tied so as to form a kind of large, twisted bun that hangs across the lower end
of the bit of cloth. The whole thing is a considerable weight. In their ears they wear large, plain silver rings or short strings of glass beads of different colours. Often they also have a string of dark beads round their necks. Their furs are fastened round their waists by a strap with long, flat copper ornaments. A heavy flat double hook of brass or copper is hung on to the strap in front. The men wear the same kind of cap, footgear and fur. The coat is often edged with leopard skin and is looped up with a sash. On their stomachs they carry long swords stuck into the sash, to which they also attach materials for making a fire, and often a knife. Their pigtails end in a brass brooch which is worn as an ornament on the forchead, when the pigtail is wound round their heads. A ring is often worn in the left ear. Sometimes the pointed cap is replaced by a little raspberry-coloured turban The men I saw were seldom above medium height. I saw plump people, no fat ones, but many thin. Many of their bare arms were muscular. The majority of those I saw had short and broad faces. Their ears and mouths were well proportioned; their noses were broad at the bottom and often slightly snub; their eyes were often large and bcautiful. They were very shy, especially the women and children; if you approach a woman by herself, she usually runs away. The women are evidently very industrious; you seldom see them unoccupied like the men. Frequently you see little girls, mere children, carrying large, heavy baskets of mould or doing some other kind of heavy work.

In the villages you do not really see the houses, but only a number of clay walls, all of about the same height. Occasionally, however, there is a second storey above the level of the wall. Round the yards there are large frames made of rods rather like those used by us in the north in our clover fields and serving the same purpose. Even in March you see some of them festooned with some fodder.

A hut that I visited looked like this. A small, well swept yard led you into a dark hall with all kinds of baskets and other large articles and thence into the living room which was
 $7-8 \mathrm{~m}$ square and about $6-7 \mathrm{~m}$ high with two small windows at a height of 1.60 m . A panelling of planed boards of a brownish-yellow colour, probably from age, and displaying the doors of a couple of small cupboards, reached a level halfway up the windows. The polished brass cups typical of Buddha altars stood on a hassock-like table in front of one of the doors, indicating that images were kept inside the cupboard. Two cauldrons were built into a low cooking range that stood against the wall opposite the entrance. Chinese cups and other small household utensils were placed on an extension of it running along the wall. Above it there was a roughly made shelf fixed to the wall, bearing various household utensils. At the end of the cooking range another shelf was fixed between two wooden pillars reaching from floor to ceiling and smoked ham, other food, and more household utensils, were placed on it. In a corner by the door the floor had been covered with a layer of earth, enclosed by low boards, and a lot of rubbish was deposited there. The windowsills apparently also served as places for storing rubbish. The floor, made of boards, was used for sleeping. It all looked fairly tidy and comfortable. The owner of the cottage, a widow of 50 , told me that she owned 3 mou of fields, 2 oxen and a cow. If this was true, she seemed to be living
above her means and it was to be feared that she would soon ruin herself over smoked ham and other rare delicacies.

After covering 16 miles, during which we crossed the river several times on rickety bridges that rocked under the horses' feet, we reached Tchogu, a village of about 40 houses. One side of the river is inhabited by Dungans, and on the other there is a Tangut village. We stopped in an unusually clean sarai, where we were given rooms on the upper floor. Such two-storeyed buildings occur from Hochow onwards, and although the draught from the floor and walls is stronger on the top floor, you are more comfortable and less disturbed there than down below in the dusty and noisy sarai courtyards.

In the evening 10 or 15 young Tanguts collected in the yard of the sarai to take a look at the foreign monsters. This gave me, too, a good opportunity of studying them at close quarters. I gave orders that they should be given some brandy to make them sing. They seated themselves in a circle on the ground and one of them sang a monotonous, ugly snatch of song in a soft but hoarse voice. Two of the others danced. They adopted a squatting attitude and waved their arms towards each other close to the ground, then they rose upright and each turned about once or twice with the same movements of the arms, though higher, keeping their knees bent and moving their feet slightly outwards. The dance was slightly reminiscent of the dance performed by the Kalmuks in the Ili valley, but was more graceful and better balanced, though it was very clumsy and there was nothing infectious or inspiring about it as, e.g., in the Russian, Caucasian and other folk dances.

Tchogu consists of 40 houses, 6 or 7 Dungan, the rest Chinese. There is a post of 6 men and the livestock consists of $50-60$ donkeys, $30-40$ cattle, and 10 horses and mules. Wheat, barley, tchinkho and peas are grown. The crop is 4 fold. Tillage is done with rainwater. Easterly burans in the 2nd-3rd months and strong east winds generally. Rain is rare, often changing to snow. Snow falls throughout the year except in the 6th month, but does not remain on the ground.

The journey to-day was very much the same as yesterday. The mountains that March 2 were of fairly large size yesterday, were rather lower to-day, i.e. those that enclosed Sasuma the valley - there were considerably higher ones beyond them, but no snow-capped peaks. Shaku $u$ Firs began to appear on the highest crests. The ascents and descents were, perhaps, not quite so steep to-day. There was grass on many of the slopes, although in no great quantity. My Dungan soldiers, however, said that the grass pasturage was good, which was natural, for mountain grass is always more nourishing than the grass in the valleys. Grey granite was visible on many of the mountains. The cattle looked small and miserable. The yak ox had already supplanted the ordinary ox, but it was a caricature of the fine beasts I saw, for instance, at the Thumu's of Huang fanzy. There were many bridges of the same springboard type. Wherever the valley widened slightly, there were Tangut villages and fields had been tilled, though the ground was very stony both yesterday and to-day. In turn we passed Kutui, Huvaizon tsong, Ungoa and Shaku sy, all of them small lamaseries with the exception of the last. They lay on the western slope of the river bank and each represented a group of closely placed houses with walls facing the river and painted white. One or two
of the buildings were higher than the rest. They were built in Tibetan style with window frames tapering at the top and contained temples or were inhabited by reincarnations of the living Buddha.

You meet wonderful groups of pilgrims on the way to or from Labrang or some more distant place. Old men with expressive, deeply furrowed faces walk along, swinging small praying mills and automatically murmuring their prayers in a low voice, and carrying pisgrims' staffs ending in a trident, below which a bit of red or yellow cloth is fastened in the shape of a bag; there are half-naked old women, too, fingering their rosaries and muttering prayers, their wrinkled old faces, with skin like parchment, of a curious blackish-brown shade.

Rafts of logs hurry past northward down the river. They are carefully tied together by means of twigs threaded through holes bored in the ends of the logs and form long, narrow vessels, skilfully steered past the rocks and through the waves of the river by a couple of half-naked Tanguts wielding two enormously thick oars, one in the bow, the other in the stern. There are a great many flagstaffs in the villages with bits of cloth in different colours, wide and very short, which makes them look like proud, shot-riddled banners of old troops.

Sasuma, which we reached after a ride of about 16 miles, is a miserable little Tangut village, where a Dungan keeps a very bad sarai. Shaku sy with a reincarnation of the living Buddha and about a hundred lamas lies opposite. I paid a visit to the monastery and, after overcoming the objections of the senior lama, was received by the "Gegen" (the incarnate Buddha). The living Buddha, a young man with a dull face, sat with his back to the window on a king in a small hut, about $2 \times 6 \mathrm{~m}$. On his right there was a shelf fixed to the wall, on which were some images in bronze and clay and all kinds of bric-à-brac, European and Asiatic, obviously gifts from devout Buddhists. I added to the collection by offering a triptych mirror and a snuffbox bought in Lanchow. He struck me as a physically undeveloped mental cripple. The conversation was carried on with the senior lama of the monastery, who answered all questions. The "Gegen» merely nodded approval. He was very willing to be photographed, so I got him to come out on to a narrow veranda, where a low throne-like chair with carpets in yellow had been prepared for him. It was evidently the only spot where the poor fellow could get any fresh air. The only time this youth of 20 spoke was when we mentioned a copy of the photograph. He begged me to remember to send him one. Blessed with a small figure of Buddha of gilded clay and encouraged by his promise to remember me in his prayers, I took leave of the holy man. The temple was of no great interest. The place of honour among the gilded Buddha figures of clay was occupied by an empty throne for the »Gegen». On the whole it was rather poor. A crowd of a few dozen lamas pressed round me and in their inquisitiveness prevented my taking a closer look at the temple.

In Sasuma there are 30 houses, ( 12 Dungan, the rest Tangut), 20 horses, 7 or 8 donkeys and $30-40$ head of cattle. Tchinkho, peas and beans are grown. The crop is $3-4$ fold. East winds are frequent. There are no burans. Snow falls often, but does not lie. In the $5^{\text {th }}$ and 6th months there is no snow.


It was a windy and cold morning when we mounted our horses, but at midday beatutiful, almost summer weather set in again. The mountains were once more wild, high and steep. For 7 or 8 miles we climbed up and down stecp spurs of rock that seemed unending, and in monaster. between we crossed the river incessantly. It wound in immumerable curves along the valley, tightly enclosed by grey mountain sides, and we had to alter our course time alier time with scarcely any breathing space. About 8 miles from Sasuma the valley grew slightly broader. the high mountains retreated and were replaced near the river by lower, grass-covered hills. Here we crossed the river without any bridge, the water not coming above the belly of my horse. Since yesterday bushes and low trees have been seen growing in the valley. During the first 8 miles of the journey firs, often coming right down to the bed of the river, grew on all the slopes that faced $N$. The firs retreated from the valley with the mountains and we could only see the dense brush of a firwood from time to time on the nearest slopes.

After seeing no villages for 8 miles, they began to appcar again. They were small and had no trees. The only thing that caught the eye were numerous fagstaffs with their manycoloured scraps of flags. We met more and more pilgrims - mostly old men, but occasionally a young one. At times we came across small caravans laden with hides. The tinkling bells of the mules, their headgear decorated with red 1 ufts and leather embroidery, enlivened the monotonous landscape. A couple of the drivers are always armed with rifles. An incarnation of Buddha was said to be approaching from the north. Groups of lamas in full dress were on the way to meet him. Their clothes of shining red print shone like silk at a distance in the sun and looked very effective. They wore Chinese fur caps on their heads with a tall knob of chased silver, ending in a blue ball of sapphire, lapis lazuli or, perhaps, glass, on top of its four dark strips of fur. Now and then we saw a group of Tanguts armed with rifles, the supports of which, made of two sticks, stuck out a good bit at the side.


View of Labrang from the opposite bank of the river.

With their long swords and rifles these little groups of horsemen looked very martial. The horses were small, but lively and strong.

During the latter part of the journey the valley was wider, though it was often compressed by projecting spurs. About io miles from Sasuma the river received a tributary, the Tana ho, from the S, along which the road to Taochow was said to go.

We reached Labrang after riding about 20 miles, the valley having made an abrupt turn to the S about a mile before. The numerous gilded roofs and spires of the monastery shone and reflected the last rays of the sun as it set behind the mountains. The monastery lies at the foot of a bare mountain slope to the $W$ of the river. Fir-woods grew on the opposite bank. A picturesque little clump of trees grew $S$ of the monastery and a little village with a few hundred Duncan families lay in the N at a distance of a couple of hundred fathoms. A little further N a Tangut village could be seen. A crowd of a couple of hundred Tanguts and Dungans was collected in the former in expectation of my arrival.

In the morning I had sent on my card in advance, asking the senior lama of the monastery, if I might stay there, but an intriguing Dungan merchant, who explained that it was not allowed to apply to the monastery, had got hold of my card and had prepared uncomfortable quarters in a sarai, where I was besieged by quite a hundred inquisitive individuals. This merchant seemed to have some influence among the Dungans, for, no sooner did I want anything or require some information, than it was invariably Ma laoje, to whom I had to apply. However, as I had on arrival told him my opinion pretty bluntly about his making arrangements independently, it was awkward for me to use this source. Later he caused me all kinds of unpleasantness, told the lamas that I was travelling without a passport etc. As a matter of fact the document that was to have been sent from Hochow via Syn ha ting, a detour of 4 days, had not arrived, and foolishly relying on the promises

Suburgan tower at Labrang.

of the Taotai at Lanchow, I had not asked the Viceroy for an introduction to Labrang, which he would probably not have refused and which would have been of great importance. Two days before leaving Lanchow I had actually informed the Taotai, as agreed, and had asked for a passport and introduction. Various excuses and prolonged negotiations, however, induced me to start without any other papers than my passport from Peiping. At Hochow I was given a passport by the Taotai, but the letter for Labrang failed to arrive and the mandarin at Hochow could not write direct to Labrang, but had to do so through Syn ha ting.

In view of the situation, in which I was placed, there was nothing for it but to make the best of a bad job and try to overcome the difficulties by my own diplomacy. The po- Labrang pulation seemed to be anything but friendly. When I showed myself, I was hooted at and monaster hissed from some part of the large yard. My „brave» Lungan soldiers, who were also to act as interpreters, seemed to stand in great awe of everything Tangut. When I gave orders this morning that the horses were to be saddled for a ride to the monastery, they said that they did not dare to accompany me unless Ma laoje came with us. We risked being stoned. It was only when they realised that I was determined to ride there by myself, if necessary, that they obeyed my orders and saddled their horses. I took specimens of all my modest presents with me, had a large piece of red silk cut into long, narrow strips and started off. It is the custom to exchange gifts of silk sashes or cloths, when paying a visit.


20-year old lama at Labrang.

My visit was intended principally for the two senior lamas in order to obtain permission to visit the temples of the monastery and, if possible, to pay my respects to the incarnate Buddha. In contrast to the stiff and unhelpful lamas whom we met at the monastery, the two seniors were amiable and smiling. They simply dissolved in smiles and slight bows. One of them is the controller, while the other, called the mimpan", receives gifts for the "Gegen", conveys them to him and announces whether the applicant is to be received or not. I gave each of them a red sash, a snuffbox and triptych mirror and received in exchange two torn blue sashes that had, no doubt, done service many times in this formality. Who knows, they might soon come into the hands of the worthy prelates again. The former, an elderly man, though very polite, could not compete with his colleague in this respect. The latter was scarcely more than 40 . It was hard to imagine where he had acquired his elegant manners and his engaging smile. In manners and appearance he reminded me very much of a famous courtier at the court of the Emperor Alexander III. His movements and his long, narrow fingers were also the same as those that once upon a time contributed so much to that courtier's charm and success. With innumerable smiles he informed me that the „Gegen» was unwell and that I would not be able to see him unless I spent some time at Labrang. He would, however, undertake to present my gifts. I produced a sash of respectable size, on which I arranged a piece of silk cloth, a watch in an enamelled case represemang an adorable woman, whose rather pronounced charms were, perhaps, none (oo) suitable for a monastery, a silver chain and quite a simple ring which I took off my linger before the eves of the prelate in order to produce a more striking effect. The charming fellow went off to His Holiness at once, but after a long absence he brought back the news that I could not possibly be received until the patient felt

The 2 - foran old lama in prolite.

slighty better. It is quite impossible we describe his smiles and inimitable expression, as he told me this bad news, as, of course, he considered it, but 1 must confess that he ated wonderfully. However, I was to be allowed to see the temples next day with a lama specially appointed for that duty. I was also to be provided with a guard for my journes. but only as far as our first night's quarters - quite an umecessary precaution, as the dangerous part of the road would be covered during the later days. The amiable prelate lived in a simple but neaty arranged room with paintings on the walls and on the low ceiling. He had a collection of magnificent large images and silser boxes of beautifulls chased work, in which he kept prayers, images etc., on a shelf on the wall. He had wo servants, bronzed by the sun, who had one shoulder naked, while the sleeves of their fur coats swept the ground, and would really have been a fine subject for an artist.

In the evening two lamas brought me a big leather bag of copper coins. They seemed to be greatly surprised, when I said that I did not accept mones, but would keep the silk cloth that accompanied the gift as a memento. As their explanations that the mone: was the same as an invitation to dinner, did not avail, they went away, but returned after a long consultation with quantities of meat which, naturally, I was unable to refuse. . Later I had a visit from a Mongolian lama from the neighbourhood of Urga. He knew a few words of Russian and was really acting as interpreter for a Tangut colleague who had travelled to Siberia, the Urals and Russia as far as Moscow. The latter had fine, aristocratic features. I saw many fine heads with expressive faces to-day inside the monastery.

As agreed, a lama was sent to-day to accompany me on my visit to the temples which, as the Timpan said, His Holiness had given orders should be opened for me. We began by going a short distance down the river to the bridge in order to take some photographs.

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The monastery buildings are enclosed on three sides by low galleries, in which large praying mills, or rather cylinders full of written prayers, were placed close to each other. These buildings were at least a mile and a half long. Innumerable pilgrims, mostly tottering, wasted old men and women, walk from one end of these galleries to the other, setting all these heavy cylindrical mills in motion. From time to time this mechanical offering of prayers is interrupted, the old people kneel and throw themselves full length with outstretched arms and with their faces in the dust. Here and there an old lama would go through the same gymnastic exercises, but he wore a leather glove on his right hand as a protection. Every morning the road from the monastery to the river is full of people, buying and selling all the necessaries of life, from food to images and other objects belonging to their cult. The goods are brought by Tanguts on the backs of yak-oxen. The latter are tethered in groups of several dozen on the bank of the river. The crowd is very mixed. The women wear their numerous small plaits and bright ornaments that almost trail along the ground. Some are rather beautiful with large, white shells or cup-like ornaments of chased silver. The young men, in particular, looked picturesque, draped theatrically in their furs, with a broad, red hem, one sleeve trailing in the dust. Their caps were pushed back over one ear, on their chests they displayed fine cases of chased silver with corals and coloured stones, containing prayers and various medicines, in their ears a ring of silver with corals, in their sashes large swords often of Damascus steel and on their feet red and green boots with upturned toes. The crowd was far from passive. No sooner did we leave a group behind us than we heard hissing, whistling, loud laughter and clapping of hands, and suddenly a stone, surreptitiously thrown from behind, would whistle past our ears. If we wanted to buy anything, we were surrounded at once by Tanguts who did their best to make the seller refuse to strike a bargain, and in the best of cases we had to pay exorbitant prices for the little we were able to buy.

The first temple we visited was Tunkö sy with an enormous gilt image of Buddha in bronze or clay in a sitting posture, the height of two storeys. In front of it stood a row of silver ornaments of beautiful chased work and further on cups with fans of peacock's feathers stuck into some of them, a large dish with a wick burning in butter, other lumps of butter, artistically shaped and coloured, etc. Two rows of wooden columns support the roof, the one nearest the altar being decorated with monstrous, heraldic bronze lions, half the bodies of which projected from the foot of the columns. Huge seated bronze figures representing Sangdi, were placed at some distance on either side of Tunkö. On the left, immediately behind the other row of columns, close to Tunkö's foot, there was a Suburgan tower, a couple of fathoms high, parts of which at any rate were of chased silver. The ashes of the reincarnate Buddhas are said to be laid here, when they die. Long and narrow, coloured, silk ribbons and other draperies in beautiful, dark colours were fastened to the columns. Similar ribbons suspended from the ceiling in the form of tubes give the illusion of more massive columns, set in motion by the slightest puff of wind. Three walls of the temple, but not the wall on either side of the door, were decorated with smaller images placed in niches that extended from the floor to the ceiling. I was told there were 1,000 of them and in any case there were a great many. The doors had massive gilt copper fit-

The Matsua sy temple at Labrang, from the east.

tings of fine workmanship. - Close to the river there was a Suburgan tower, parts of which were beautiful gilt bronze. This was undergoing repair at the time and a crowd of young Tanguts were busy digging and carting earth to the accompaniment of singing.

The next temple we visited was closed and we could not find any watchman. In the next one, slightly lower than the first, "Tungshikh", a very large image, well made of gilt clay or bronze, was seated facing the door. Very beautiful standing images of bronze were placed on shelves behind him, as though forming a semicircular frame. Large bronze images, representing the same "Tungshikh», but in different garb and also in a sitting posture, stood on the right and left of the principal figure. The back wall was occupied by niches of various size with bronze figures of $1 / 2-1 \mathrm{~m}$ in height of beautiful workmanship, the side walls by smaller bronze images in innumerable niches. Besides, there were the same ornaments in front of the altar, dark coloured silk ribbons hanging from the roof, etc.

In a third temple »Djukung» was seated, three times as large as life. Two bronze figures, about life-size, with sticks and decorated with many silk ribbons stood before him. On the right there was the same Djukung in a niche and on the left Göndsja, both of gilt bronze, life-size, in a standing posture. The side walls were decorated with standing bronze images of the same size, placed in niches, and the back wall with small bronze images, seated, in niches.

The door of the next temple was closed in my face and all blandishments proved unavailing. A large number of lamas collected to watch my departure and showed their hostility in various ways. Three old lamas were walking round the temple, murmuring prayers and fingering their rosaries. While we remained there, they continued to make the circuit unceasingly, draped in their togas and looking like shades sent to guard the entrance to their holy of holies. - An attempt to enter another temple had no better success.


Tanguts in the yard of the serai at Labrang.

Followed by a crowd of lamas, our guide led us from one backstreet to another. Evidently! he hoped to tire the inquisitive escort and then continue the round in peace. When he finally decided to make an attempt, I saw two stones prepared to be thrown at me and the door was banged in my face. We crossed a square at the very moment when service was over in some of the temples. The bareheaded lamas, dressed in red, appeared on all sides like an army of ants. Hooting, jeers, stones etc.

The friendly lama, who was piloting us, nevertheless managed to get a temple opened. The seat of honour in the hall of the temple, decorated with 5 rows of wooden columns, was occupied by Dogung, though he did not differ particularly from other images occupying one of the side walls of the large hall. This temple was considerably lower, but the centre of the roof was raised and allowed the light to enter through the walls of this drum that formed a row of large windows. There were hassocks along the walls in several rows all round the hall. When we came out again, the crowd of lamas had not dwindled; we continued our round with them following on our heels. Our lama was nervous and obviously anxious. Suddenly he remembered that I had promised to go and see a lama who had called on me the day before. As if by accident, we happened to be just outside his door. An array of sweets was displayed on a table in a large, light and unusually clean room, in expectation of our arrival. This was really meant for Tambarabdsji, a young Tibetan, who had been to Mongolia, the Transbaikal district and Siberia as far as Irkutsk and, owing to his liking for Russia, had looked me up, when he heard that I spoke Russian. He was exceedingly amiable and made a good impression on me. He had taken a Mongolian from the neighbourhood of Urga, who spoke a little Russian, as interpreter. The entertainment, however, had been prepared at Algdsjembas's, one of the senior "holy" lamas (as a Burial called them) of the monastery, of whom there were about 30. This man was

Tanguts in the yard of the sarai at Labrang.

a lively prelate of 40 who was enthroned at a separate table on a dais at the back of the room. He had also lived among the Buriats in the Transbaikal district and greeted me in good Russian, of which, however, he only knew one word. There was also an elderly Buriat present who had been studying the Buddhist religion for 10 years and spoke Russian perfectly. Coloured Russian tablecloths, tea-glasses with holders, Russian marmalade, caramels and a couple of large musical boxes bore witness to their close relations with Russia. It was only the red clothes of the lamas and the absence of the three kisses of welcome that made one realise that one was not in the land of the Czar. The wholym lama ate with an excellent appetite between prayers and it did not take much persuasion for us to do justice to the lamas' "pelmeni" (chopped meat wrapped in dough).

I sent a message to the Timpan to ask, if I might continue to see the temples, but as his reply was as polite and non-committal as his whole personality, I lost my temper and decided to leave Labrang the next day.

The monastery covers a large space and contains a multitude of small houses, painted white and enclosed by walls. Large, fine temples tower among them, mostly of a brown colour with gilded roofs, spires or other ornamentation. They are built in two or three storeys and the black frames of the windows, broader at the bottom, give them the appearance of tapering towards the top. I was told that there were 18 large and 40 small temples in the monastery. There are about 3 ,000 lamas, including many Mongols, Torguts and


Beautifully worked praying drum, fastened to a pole, carried by a rider while travelling on horseback.
From Labrang.
a few dozen Burials, who receive their education as lamas here. The monastery is held in great respect and is said to be very wealthy thanks to the generous gifts of Buddhist milgrims. To indicate the importance of Labrang I was told that, when the Dalai Lama reached the Sining monastery, a few days' journey from Labrang, on his flight from Tibet, the "Gegen» of this monastery sent him the following message: „The Saviour at Labrang invites the Saviour at Lassa to visit him and his monastery", to which the Dalai Lama replied: "Tell your master at Labrang that there is only one Saviour - the Saviour at Lhassan.

March 28th. I had intended leaving this morning, but in order to complete some ethnographical Tuolungtu purchases 1 had to postpone my departure for a few hours, and when I got away at last, village. I was obliged to leave Tchao behind under the protection of one of the Dungans to settle for the purchases. Personally I wanted to reach the mouth of the Tana ho today, where the road to Taochow and Minchow branches off from the one we had been travelling on, and so shorten the journey to-morrow by about 10 miles.

The village of Tuolungtu lies about a mile short of the Tana ho. I had a good deal of trouble in persuading my Dungan to try to find a night's lodging for me there. He

Objects used by the officiating lamas at ceremonies in Buddhist temples; two kinds of thunderbolt (odordjie") and a triangular dagger with a hill consisting of a »dordjie» and a skull.

From Labrang.

declared that it would be impossible in a Tangut village and that it would be better to goon for 7 or 8 li on the other side of the river and put up for the night at the house of a Chinese. However, I stuck to my resolve and the brave warrior had to climb over the wall into closed yards. After seemingly endless arguments the gates of one of the yards were opened, but I wonder if this one had not been chosen with the fixed intention of scaring us away, for a leper of such terrifying appearance showed himself on the threshold that I, too, would have fled to another village, had not my stubbornness and the darkness gained the upper hand and forced me to make the best of the accommodation available. The leper was made to sleep out-of-doors, while all of us lay down in a large room in the company of two cows and a horse. It was furnished in exactly the same manner as the one I have already described. I lay down on a raised part of the floor, where a couple of blankets had been spread out and looked inviting. I was awakened at dawn by someone pulling away one of the blankets. On opening my eyes, I caught sight of the leper. Apparently I had spent the night on his bed. -.. All the Tanguts whom I saw in the village seemed extraordinarily shy. The village contained in or 12 houses. The livestock amounted to 10 horses and 20 head of cattle. Tchinkho, peas and a few oats are grown. The crop is $3-4$ fold. Westerly and especially easterly storms are common.

March 2gth.
We left this inhospitable village with its leper just after $6 \mathrm{a} . \mathrm{m}$. The Tana ho is a small
Kadia monastery. tributary of the Teisha ho, flowing from the south in a narrow gorge between fairly steep mountains, those on the right being wooded. We passed a small Tangut village in a valley on the left. Otherwise we saw no tilled land. There was grass on the slopes of the mountains. About 2 miles further on the road left the beautiful valley and led over the mountains in a SE direction. The ascent took 50 minutes with a short rest and was very steep. The highest point, a kind of pass that was called Latsa tinga, is embedded in mound-like, grasscovered mountains that shut out the view to the $S$ and $W$. In the $N$ and $E$ we could see many similar grass-covered ridges and mountains without any visible sequence. The view was veiled by the curiously misty air. The descent was also very steep, though not so long.

Soon we entered a narrow valley with a rushing stream. This continued to descend steeply and led us to the E and SE. At first both the steep slopes of the valley were wooded with fir-trees and we enjoyed many beautiful, wild views, but after a couple of miles the trees thinned out and only grew in side-gorges on slopes facing N until finally they disappeared altogether. At a place, where the valley grew slightly wider and the slopes were gentler, we passed the little village of Langjang, and in a gorge on the left we saw another couple of villages. About a mile further on the stream we had been following debouched into the valley of the Lungva ho, about 150 fathoms wide. Following the course of the river, the road made an abrupt turn to the E. A lovely view up the valley of the river to the SW was disclosed, ending in snow-clad mountains, the name of which, unfortunately, no one could tell me. For some distance the slope facing N was densely covered with firs which increased the beauty of the road. The opposite slope grew grass, but was bare at present, and two small lamaseries, Lungva tasy and Luvaka sy, and 2 or 3 villages surrounded by patches of fields were situated at its foot. Tall bushes and small trees grew in the valley of the small river and interfered very much with mapping.

In a few miles the Lungva ho debouched into the valley of the Kup ho or Kö ho, a tributary of the Teisha ho, about $1 / 2$ mile wide. The river was 12 fathoms broad and flowed here in a $\mathrm{S}-\mathrm{N}$ direction. At the spot where we crossed it, the water covered $3 / 4$ of my horse's legs. The water was brown and dirty. The road turned against the current of the river at first southward, but soon changed to a SE direction. On the right we passed the monastery Tashi sy with $80-90$ lamas and several villages in side-gorges at some distance from the road. Some villages were also visible in the valley or on its E slope on the left. The slopes were mostly bare with signs of grass. Some fir-trees could only be discerned in places on the NE slope, mostly in side-gorges.

Kadia sy, inhabited by 3-400 lamas, lies at the place where the river valley makes a sharp bend to the E. We installed ourselves in a sarai not far from the monastery buildings and were immediately surrounded by a few dozen indescribably importunate lamas. As I had a great deal of work to do and the yard was crowded, I begged them to leave me in peace, and as this did not help, I had the gates closed. The slope, at the foot of which the sarai lay, was soon swarming with red-clad lamas who welcomed me, as I came out into the yard, with some well aimed big stones. To put an end to this I took my shot-gun and fired into the air, but as they continued to shower stones on me, I fired another shot at


A Buddhist rosary, broken by red balls and small thunderbolts (ndordjien) fastened to the forks. From Labrang.


A rosary compnsed of the cerlebiar of snakes.
From Labrang.
the ground close to a venerable lama who had just hit me on the leg with a stone. The dust thrown up by the shot made them come to their senses and the hill was soon deserted. A messenger whom I despatched to the superior of the monastery to inform him of what had happened, brought back the news that the worthy prelate had promised to cut the throat of the miscreant who had hit me with a stone. Pacified by this assurance that the authors of the disturbance would receive just punishment, I fell asleep.

The distance covered to-day was 21 - 22 miles. Next to Kadia sy, or Kadiger according to Potanin, there are $17-18$ houses, over half the inhabitants of which are Dungans, and about 30 Tangut houses. The livestock consists of $40-50$ horses, $70-80$ cattle and 800 900 sheep. Tchinkho, a kind of poor oats and peas are grown. The crop is 3 -fold. SE storms are common.

Since I left Hochow, not a day has passed without my being advised to take another road from Labrang, as the road over Taochow had a bad reputation for robberies constantly committed there. The jai who was to have accompanied me, thought it wiser to disappear at Labrang and I was unable to engage a couple of Tanguts as guides. The explanation was always the same; the road was dangerous. At our last stop for the night the tales took on definite shape. Bands of 30 or 40 Tanguts infested the neighbourhood and attacked almost everyone who was obliged to take that road. One of the gangs was said to possess modern rifles, the others being armed with ordinary local weapons. The country was wild and desolate for long stretches and the bandits kept a lookout from a hill and ambushed travellers. In fact, it seemed impossible to cover this part of the journey without one


A Tangut from the neighbourhood of Ki the shan.
or two encounters. It sounded unbelievable, but thinking it wiser to be prepared, I armed my men with all the arms in my stores and in my ethnographical collections. I brought out Tangut swords and Tangut rifles without wicks or charges to make the men feel more confident. Soon after we had started I noticed that a soldier, who had been sent from the last post to accompany me to Taochow, had also preferred to forgo his reward and had disappeared with a sword as big as himself.

The road runs almost due $S$ along a narrow ravine with steep sides. After 3 or 4 miles we left it and proceeded over very uneven ground with traces of grass. We passed a village of a couple of houses on the right and saw a couple of others, about as small, at a distance, each in a fold of the ground. About 7 miles from Kadia we came to the monastery of Hatsuo su. It was comparatively well built with several large temples, apparently rich, judging by their exterior. I was told there were about $\mathrm{I}, 000$ lamas in the monastery. Close to it was a small village, containing a sarai. It would have been interesting to see the momastery, and perhaps I should have been more successful this time, but I did not want to waste time and we rode on. At first we followed a small stream or river, flowing in the opposite direction to ours and supplying water to the Hatsuo ho that runs northward. The terrain consisted of grassy hills, either in long ridges or in more or less isolated moonthins. There was a succession of small villages along the river, the very restricted fields of which lay either in the valley or on a gentle slope. Numerous flag-staffs indicated the nationality of the population without our having to make enquiries. The men and women were out at work. Ploughing was done entirely with yak-oxen, of short stature, obviously a cross-breed.


The road soon took us from this tilled valley up one of the hills still in the same ESE direction that we had taken from Hatsuo su. The very uneven country was now quite desolate. There were mountains further south and some chains of hills and valleys led more or less from them approximately in a NE direction, cutting across the road obliquely. The ground was grassy. The valleys, not deep in comparison with the level of the ground, were often marshy. This monotonous, desolate country continued for $7-10$ miles. There were 3 or 4 houses in a valley and we caught sight of a couple of small herds, guarded by armed Tanguts, but otherwise there was not a living thing in sight. A cold east wind made the journey still more unpleasant. We pulled on our furs, but could not keep warm. This was the part of the journey that had such a bad name, but I saw no bandits nor their victims, caravans - all was desolate and quiet, only the wind howled and raised clouds of dust at times. After riding for many miles, our course became more southerly. We drew near to the mountains in the $S$ and cut across them in a direction due $S$. They consisted of löss throughout, with grassy slopes. At the point where we crossed them, they formed a pass between mound-like hills. The ascent and descent were fairly steep, but not very long. On the southern side of the pass we entered a valley between hills of löss. At its beginning there were two Tangut tents, black in colour and each with a small enclosure for the cattle. One had a flat roof, the other was tent-shaped, though both were almost equally low. The village of Vankur, our goal for the day, lay a mile or two further on.

We stopped at a sarai kept by a Tangut. The room set aside for me was quite luxurious: lined inside with boards painted from floor to ceiling, a floor built of boards, doors with a kind of lock made of a peg and so on. Altogether, I found the Tangut villages better built


> A Tangut aillage not far from the rillage of Vankm

than the Chinese and infinitely better than the Sart villages. The walls are strong, of well pounded clay. The rooms are very large and free from the bulky "kang" as they call their sleeping place on a raised part of the clay floor. Next to the cauldrons there are large stands for supplies. Even in unwooded districts the rooms are lined and the floors covered with boards, so that it is possible to cope with the dust and dirt. The roof of light beams and boards is considerably higher than you find as a rule here in Asia. Even when the cattle are kept indoors, I am inclined to think it is not so unpleasant. The animals stand in stalls in a corner, partly walled off by a low partition. In the cottages I visited the manure was cleared away fairly well and these corners looked tidy.

The type of the people here reminded me of the type I saw near Hochow. They are rather below medium height and their faces and noses are broader at the base. Their mouths and ears are normal. Their eyes are dark and often beautiful. The fine male types, both old and young, that I saw at Labrang, no longer occurred here. The inhabitants also began to look more peaceful. Swords were still visible, but rifles with their characteristic pairs of projecting feet were only seen in the houses. The women fasten pennant-shaped bits of cloth with various ornaments to their plaits, but far more modest than the striking objects you see at Labrang and in its vicinity.

The distance covered to-day was at least $28-29$ miles. There are $30-40$ houses in Vankur inhabited by Tanguts. Tchinkho, the same kind of oats and peas are grown. Crop $3-4$ fold. The inhabitants breed cattle for sale. There are 1,300 head of cattle, $8-900$ sheep and $30-40$ horses. - Snow falls between the 9 th and 5 th months. It remains on the ground for 3 months. There is little rain in the 2nd and 3 rd months. During the same months $\operatorname{SE}$ storms are common.

March 3131. 'The whole of the journey to-day was through cultivated country. For about 7 miles Sin-cheng we followed the stream or river that flowed past the village of Vankur after starting from (Taochow). the Khi tha shan pass that we crossed yesterday. It winds along a valley, $1 / 3$ of a mile

wide in some places, between grassy hills of soft earth, in which there were many crossvalleys, especially on the left. In all of them there were villages of $20-30$ houses and in the valley we rode through one called Itento. The field area of each village seemed very small. This was the case from the time we entered the mouth of the Teisha ho gorge $S$ of Hochow. The ground in which the fields had been made, was very stony everywhere. We saw no large herds; the cattle and horses were of unusually short stature. The sheep were fairly large with horns curving outwards and long, very slightly curled, fine wool. The dogs were magnificent big animals, reminiscent in type and colour of St. Bernards. There were no indications of prosperity.

Leaving the valley, we took a more easterly course. After riding across a slight hill, we crossed another small valley in which a village was visible on the left and further off the white buildings of the Tjamkar sy monastery with 300 lamas. The road now continued in an ESE direction, either following a valley between hills of löss or traversing a hill and taking us once more into a valley. We reached the highest point of the day about $8 \mathrm{I} / 2$ miles from the village of Vankur.

The land became more and more cultivated and had the same appearance as between Lanchow and Hochow, the same hills in tilled terraces leading like huge staircases up to the summits, often crowned by a big upright stone or column of clay. There was not a tree to be seen, not even in the villages. The latter were plentiful, but began to lose their Tangut characteristics more and more. There were fewer flagstaffs, the stands for drying cattlefood, and grain often 3-4 fathoms in height, grew smaller and were sometimes entirely absent, even the buildings began to acquire a Chinese touch and the outer walls were lower. The women wore two long, narrow straps with small copper discs sewn on to them in their hair, hanging down their backs and caught up by their belts. There were scarcely any armed men, but in almost every village you saw a Chinese or Dungan
 A Tangut woman collecting droppings.
living. Everything pointed to the fact that my all too brief time among the Tanguts would soon be a thing of the past.

Soon we found ourselves on a dusty arbah road that wound along a ravine in the soft ground. The latter grew less and less stony. We met loads all pulled by oxen, mostly short yak-oxen. Here and there a herd of sheep could be seen on a slope. The road described a curve to the $S$ for a mile or two and then resumed its former course. Soon after it debouched into the Taochow valley, about $2 / 3$ of a mile in width. Here everything, valley and slopes right up to the summit of the mountains, went in terraces. It formed a curious landscape of nothing but wide stairs, at times straight, at others rounded or of the most irregular shapes, bare and treeless as far as you could see. The old town-wall appeared in the SE - neglected and dilapidated. In some places it is overgrown with small bushy plants which give it the look of a venerable ruin. On the side from which we approached it, it was enclosed by a large number of houses in a suburb. A crooked street led us to an open space, like a market square, running along the town wall between two rows of houses. Quantities of white sunshades put up to protect the stands from the almost burning sun gave the square, through which a stream poured a brown streak of water, and the blueclad, monotonous crowd, an unusually pretty appearance. A couple of Tanguts in huge fur caps, were sitting, naked to the waist, warming themselves in the sunshine. The venerable old wall, with its turrets and battlements overgrown with grass and bushy plants, formed a beautiful background to the stands and small houses. The town is said to be over 1,000 years old.

Sin-cheng belongs to the district of Taochow-Sin-cheng. The local administration is in the hands of 2 Shang-ja - 1 for the town and the other for the inhabitants of the suburb. The rural population pays its taxes direct to the mandarin at Sin-cheng. - The specialities

## A Tangut woman collecting droppings


of local trade consist of a kind of mandarin plumes provided by some kind of bird that is said not to exist elsewhere. These plumes are sold yearly to the value of about 200,000 taels and are even supplied to Peiping. About 300 tan of oil are sold annually and deer-horns and musk for about 300,000 taels. - Tchinkho, beans, peas, mustard and potatoes are grown in the valley. The yield is $5-6$ fold. - The town population, amounting to $1,200 \mathrm{tja}$ in the town and 1,400 in the suburb, is said to own about 1,000 horses, $6-7000$ mules, $5-6,000$ head of cattle, $30-40,000$ sheep and $8-9,000$ donkeys. Over $50 \%$ are Mohammedans. The weather is often cold and windy. Snow from the end of the 8th to the middle of the 3 rd Chinese months. Rain between the 4 th and 8 th months, but rare. The distance today was about $16 \mathrm{I} / 2$ miles. - Mr William Ruhr, a representative of the American Missionary Society, lives in the town. His work is confined exclusively to the Tanguts.

We had finally left the Tanguts behind us. The inhabitants E of Sin-cheng are entirely Chinese or Dungan. Occasionally you meet a Tangut on horseback, but many of them speak Chinese, wear Chinese shoes and, to all appearances, belong to a class of Tanguts, in which

April is Taochou (Sin-che) Chinese influence is already very pronounced. I met a couple of women wearing curious dresses, but as I was busy mapping, I was unable to examine them carefully. The dresses seemed to be pretty, in blue, green and red, made of coarse cloth, and the women had long plaits hanging down their backs. One of my two soldiers said that the costume was worn by the local Dungan women, but on closer investigation I found that it, too, was a Tangut costume. The dress did not seem to be worn generally. I did not see it in the town, but only worn by these two women on the road. The Dungan and Chinese women -


Tanguts in the market-place at Tauchow (Sin-cheng).
even generally among the townsfolk - wear shoes with an upturned, pointed toe - something like those of Turkish women.

The country we traversed to-day is a counterpart of the Chinese nation in its uniformity, its dress, forms, life, ideas and customs. Bare ridges and rounded mountains in innumerable terraces. If you look up, it seems as if you were climbing giant stairs. If you cast your eye down into a valley, again you see the same imposing stairs. Down in the valleys you see small river beds, the muddy red water often having cut ravines of several fathoms in depth. Close to them grey villages with flat roofs and many walls. A tree is a rarity.

The road goes up and down all the time. You climb laboriously to the summit of a ridge, and again down from it by a steep road. For long distances the narrow road is sunk deep in the soft earth and you scarcely see anything but its perpendicular sides, alternating between red and greyish-yellow in colour. There was a great deal of dust and the heat was already oppressice. Our course was easterly with a slight tendency to the ESE at times. We crossed 3 large ridge-like mountains of löss in turn, two of them in particular being considerable. The first one, immediately to the E of Sin-cheng, is called Shapo san. The other considerable mountain is the third you come to.

The last valley we crossed before reaching Sin-cheng looked rather more attractive than the others thanks to some trees that were planted in places along the road and in a couple of villages. From the top of the next ridge you get a fine view of Taochow-Sin-cheng lying at the bottom of a narrow valley embedded among hills. It is enclosed on three sides by a dilapidated wall of the usual type, the fourth side crossing the top of the hill, at the foot of which the town lies. A large part of the town area is bare and the little there is in the way of buildings is indescribably unpretentious. There is a small suburb next to the S wall, enlivened to-day by a large, noisy crowd of people. The first day of each month is bazaar day here. - Our distance to-day was 18 - 19 miles.

Taochow forms a ting district. The principal villages in it are the following:



## An old Tangut woman watering her horse and donkcy.

According to Christic, the missionary, the population of the district amounts to 50,000 Chinese and 40,000 Tanguts. The Mohammedans live principally E, NE and W of Sincheng, where they amount to 8,000 (including the town) - in the neighbourhood of Sincheng about 2,000 . - The Tangut prince Dsjuoni has about 75,000 subjects. - Wheat, oats, barley, potatoes, hemp, mustard and some opium are grown. The yield is said to be: in the $E_{5-6}$; in the $S 6-7$; and in the $W$ and $N_{5}-6$ fold. In the $E, S$ and $N_{2} / 10$ of the population and in the $\mathrm{W}_{7 / \mathrm{ro}}$ are Dungan, the rest Chinese. - 3, roo tan of grain and $7-800$ taels are collected annually in taxes.

It is estimated that there are $5-600$ tja in the town, 200 in the suburb. Trade is less than in the suburb. Deer antlers are exported annually to the value of $80-90,000$ taels; musk 100,000; mandarin feathers of matchi 100,000 taels and hides and wool to an unknown amount. The latter are mostly sent to Tsinchow and Fuchan - Taochow-Sin-cheng is connected by arbah roads with Hochow over Yangsa, Su-ku-chien, Madjati and Tadzasu, 5 days; Titao-chow over Yangsa, Sugutchyen and Hungto-i, 4 days; Sin-cheng I day and Minchow over Hsitatsei 2 days; and by mountain roads with Kung-Chang-fu and Ning yuan. - The Taochow district, embracing the old and new towns and their surroundings, is subordinated to Kung-Chang-fu. In addition to the local mandarin a Hsietai and an American missionary live at Sin-cheng.

April ${ }^{\text {rrd }}$. In order to gain time I had intended to ride from Taochow-Sin-cheng direct to Ning Hsi-ta village. yuan instead of taking the highroad over Minchow. However, the mandarin, whom I had asked for help in securing pack-animals and a guide, raised various objections concerning the latter. He advised me emphatically not to take this crossroad. He assured me that for several li it went along a narrow ledge high above the Tao ho. The ledge was so narrow

A Tangut mounted on a donkey.

that a horseman could only just pass, but no heavily laden animals, still less a ijao. As his arguments did not achieve the desired result, he sent word that, if I was determined to take this road, he would not send a single man to accompany me. I replied that that was his own business - he would, of course, do as his duty demanded, and that 1 had already obtained a guide. Realising that I refused to place myself under his guardianship, he altered his tactics and informed me that he would not only provide a guide, but would place a „jai» and soldiers at my disposal, but that he disclaimed any responsibility.

These lengthy negotiations had forced me to spend a day in Sin-cheng, which was anything but pleasant. It rained the whole day and in the evening the rain turned to snow. When we were ready to start next morning, the snow was several cm deep and continued to fall. As I was afraid that in such conditions I might in reality not be able to get my luggage across the slippery ledge at the place referred to and be forced to lose time, I decided to take the Minchow road. This runs at first in an ESE direction at the bottom of the valley, in which the town lies. We passed a couple of small villages and at a point where the valley forked, we followed the southern branch that very soon led us across a small pass with a gentle ascent and descent. On its $S$ side we set our course due E along a narrow valley surrounded by grassy hills. During this time we passed another 2 or 3 small villages. About 2 miles from the pass the road turned $S$ once more and took us over another small pass. On the other side of it we continued to the ESE through a valley of scarcely $100-200$ fathoms in width. We rode past several insignificant villages. A stream started a little
further on on the right. Small clumps of leaf-trees began to appear here and there in its bed. At the village of Sans about $21 / 2$ miles from the pass the valley took a sharp turn to the S , and following it we took the same direction along ground that still dropped slightly. The valley grew wider and was fully 200 fathoms broad. The villages became larger and there were rather more trees. On the mountain slope facing E, on the right, a couple of small fir-wood's became visible. Already when we had crossed the first of the small passes mentoned, the terraced ledges on the slopes had disappeared. The slopes were grassy. The soil had a strong admixture of stones and clay. Both round stones and rough bits are in general use as a building material for walls and houses.

After extending for about $51 / 2$ miles in a $S$ and $S S E$ direction our valley debouched into the valley of the river Tao ho at a big village, Lyngtiko. The river is $30-40$ fathoms broad at this place and describes a curve from the south, which continues in an ESE direction. It presses against the mountains in the $N$. The view up the river is lovely over many moncains in various shades of colour, ending in a white ridge. The residence of the Tangut prince Dsjuoni and a monastery of about i,ooo lamas, renowned for being the only lamasery in Amdo, where Buddhist books are printed, lie about 70 li higher up. An American misssionary is resident there. The neighbourhood is said to be very beautiful and the shooting good. The young Dsjuoni prince represents the isth generation of the princely house that has been in power for 526 years. He reigns over 41 divisions of the tribe ( $==$ nshokhua)), varying in size between 60 and 300 families. Each sshokhuan has its own chief and banner, under which it assembles to wage war.

Owing to the country we passed through today, in which there are no large open spaces, mapping was difficult and took up an unusual amount of time. Darkness was setting in by the time we reached the Tao ho. The road ran along a convenient ledge on the steep side of the mountain a few fathoms above the river. $2 / 3$ of a mile beyond, the river goes over to the mountains of the opposite bank and an open space of about a mile is formed between it and the mountains we had been following, with the village of Hsi-ta-tsei lying at the beginning. - The distance today was $21-22$ miles. - Hsi-ta-tsei has a Chinese population of $60-70$ houses. The livestock amounts to 100 head of cattle, 15 horses and $2-300$ sheep. Wheat, barley, oats, peas, mustard and potatoes are grown. The crop is $4-5$ fold. - Westerly burans for 2-3 months. Snow between the gath and 3rd months, remains lying from the end of the 10 th to the beginning of the $2 n d$ and reaches a depth of 5 vershoks. Rain between the 3 rd and 8 th months, - rare. Hail is frequent in the 6 th month.

April fth. The journey from Hsi-ta-tsei to Minchow is made entirely along the tilled and densely Minchow. populated valley of the Tao ho, about a mile and a half wide. For about 12 miles the road takes an ESE course, the rest of the time ENE. The dip in the ground is imperceptible, the mountains are beautiful again, with many grand and lovely views. Unfortunately the weather was dull and cloudy. The higher parts of the mountains were shrouded in thick clouds and it was impossible to do any photographing. One big village succeeded another and closer to the foot of the mountains another series of considerable villages was visible

## Tangut women digging in the

 village of Tahlishi.
on either side of the road. Having ridden about 3 miles, we crossed the river by a bridge in the village of Jehu chow lying on both banks. Here the river is greatly compressed between small rocks and is not more than io fathoms wide. The mountains, bare and grassy for almost the whole distance, have a thick little fir-wood here on the N slope. Another wood grows about 8 miles beyond close to the village of Taku-tsei. There are still a great many stones, and stone is generally used as an accessory material in building. The river flows mostly so far from the road that it is invisible, only approaching the mountains in the $S$ at times, when it flows quite close to the road.

After a journey of about 16 miles we reached the town of Minchow, built near the foot of the mountains on the right bank of the river at a short distance from it. The long wall, 4-5 fathoms high, of pounded clay, was very dilapidated. It had a crenellated parapet of baked bricks, but had neither any moat nor outer protected space. The wall that faces $S$ and $E$ was very irregular in its direction. In the $S$ and $E$ it was enclosed by a fairly large suburb, but inside it was emptier than any Chinese town I had seen, not even excepting Ansi. The town area was no less than a mile in length and in width ( $\mathrm{S}-\mathrm{N}$ ) about half a mile.

The American missionary station, built on a slight hill, overlooks the town. The site was formerly occupied by a Chinese temple that was bought for a song by the missionary society. The head of the station is a Mr Ekvall, a Swedish-American, who showed me great kindness and hospitality. In his house I met another American missionary, William Christie, a Scotsman, who was on his way home for 18 months' leave after several years' work among the Tanguts. His headquarters were at Dsjuoni and he told me a great deal about the life of the Tanguts. Severe rheumatism and a slightly sprained foot forced me to postpone my departure from Minchow for a couple of days and afforded me an opportunity of listening to Christie's impressions and interesting experiences.


A 70-year old Tangut in the village of Tahlishi.

Minchow, like Taochow-Sin-cheng, is supposed to have been built about 500 years ago during the first years of the Ming dynasty. In former times a Tangut prince is said to have resided at Minchow and even to have lived on the hill where the mission station stands at present. - Nowadays the town is the residence of a Thou, subordinated to Kung-Chang-fu, and a Tysy under the Hsietai of Taochow. Before the Dungan revolt the Taotai of Tsinchow was resident at Minchow. - The town has a population of about $2,000 \mathrm{tja}$, of whom $10-15 \%$ are Dungans. About 4-500 ja of the inhabitants are peasants. There is less trade here than at Sin-cheng which is the principal centre in this neighbourhood for trade between the Tanguts and the east. The main articles sold are honey for ${ }_{15}$,000 taels - Lanchow, opium 65,000 - Taigung near Tajuan, teihuang (herbs) $35,000-$ Tsinchow and Lanchow, njuhuang (herbs) $10,000-$ to the east, musk ${ }^{25,000}$ - to the east, deer horn ${ }^{5} 5,000$ - to the east and »tankui» (herbs) - Tsinchow and Lanchow.

Minchow is connected with Titao by a mountain road (said to be possible for arbahs with difficulty) over Chungzeiti 70 li , Lama 40 , Luotja mon 35, Chang tia thur 60 li 5 days; Kung-Chang-fu by an arbah road over Hungshuikui 20, Tatseitan 85, Santsa 90, Chang hsien 30 , Kung-Cihang-fu $70 \mathrm{li}-5$ days; Tiechow by an arbah road over Katapu 60 , Tanchang 60, Kuanting 80, Gaza chow 80, Tjaokung 60 and Tiechow $80-6$ days (thence 10 Szechwan); Siku by the same road to Kuanting and thence 8 o li to the W to Siku. 2 or 3 roads lead to Wing yuan and i direct to Tsinchow. It is said to be only one day shorter than over Ning yuan, but bad.

For purposes of local administration the district is divided into the following principal Shang-ja areas: villages tia annual crop cattle horses mules $\begin{aligned} & \text { don- } \\ & \text { keys }\end{aligned}$ sheep


In the $\mathrm{N}, \mathrm{E}$ and W wheat, barley, tchinkho, oats, potatoes, opium and mustard are grown. The average crop is $5-6$ fold. In the $S$ more tchinkho and barley are grown, besides hemp and tchumiza. The average crop is $6 \rightarrow 7$ fold. In the E and W to \% of the population are Dungans, in the S and $\mathrm{N} 20 \%$. - The annual taxes levied in the district amount to $4-5,000$ tan of grain and 1,900 taels besides about 1,000 taels in duty.

In regard to reforms, schools were opened here and at Taochow about two years ago. At Minchow there are 20 pupils. The teaching staff, two men educated in Lanchow (one insufficiently), is said to be rather incompetent. -- I was told that the opium plantations had been registered. Trade in opium can only be carried on in a limited number of shops, each of which pays 300 tehoks a month. The rural population has reduced its plantations of its own accord for fear of taxes being raised. There are said to be large deposits of coal at a distance of 25 li from Minchow. There is gold 2 days' journey to the SW. - The climate is said to be very healthy. There is dry cold in the winter, easy to bear. Storms only occur during two months in spring and the summer is very temperate, without any mosquitoes.

April 7th. Rain began to fall towards evening yesterday and continued into the night. A good Laotien village. deal of snow had fallen higher up in the hills, which helped to make the landscape stand out in clearer relief and look more beautiful when we started this morning. It was still cloudy, cold and dull, however, About 2 miles $E$ of the town we came to the Tao ho after crossing a small tributary, the Tjedja, flowing from the S quite close to the E suburb. The Tao ho is $25-30$ fathoms wide here and flows between fairly steep mountain sides. $1 / 3$ of a mile further on the river is crossed by a ferry worked by a rope. After keeping the river imprisoned for about 2 miles, the mountains retreat and leave room for fields of $1-11 / 2$ miles in width on either bank. The village of Tsapui with 100 houses in 3 groups lay on the road with several watermills on the Nanaho, a river flowing from the E and running through the village. From here a road goes over Kuotoli, Jeshanku, Pumali, Shinsiho and Kuanglung pu to Ning yuan. Several villages were visible on the opposite bank. The watermills in the neighbourhood of Minchow and Taochow have very narrow waterwheels, but placed vertically as in Europe, not horizontally as in Central Asia. The arbah wheels, too, though badly made, remind one of European wheels in form. The spokes are not set in the same plane as the rims, but sloping slightly inwards. The few arbahs we met were drawn by oxen. Small brass balls were threaded on to the points of their horns and some were also decorated with red tufts that descended on to their foreheads.

About a mile from Tsapui we reached the mountains on the right which had again approached the river. For $3 \mathrm{I} / 2$ miles we passed more or less along their foot, the river being at times close to the road, at others rather further off. We passed several small villages and one larger one, Michuan, of 80 houses. Shorlly before reaching the latter, we crossed a river bed coming from the $E$, dry at present. The road had followed the course of the Tao ho and had changed from an E to a N and NNW direction, but now turned and led us up a gorge to the NNE, at the bottom of which a stream-like tributary of the Tao ho wound its way. It was bounded on either side by grassy hills with gentle slopes. In the hollows in the ground we could see very stony clay and there were many small stones on the road and, in places, on the scattered small fields. In the more open parts of the valley of the Tao ho there were also a great many small stones. The ground rose slightly. We passed a couple of very small villages at the bottom of the gorge. Occasionally we saw a single tree or a small clump of trees.

After covering about $18 \mathrm{r} / 2$ miles we came to the village of Laotien, our goal for the day.

I was told it had 30 houses inhabited by Chinese. Wheat, barley, tchinkho, oats, beans, peas, potatoes and mustard are grown. Average crop 4-5 fold. - Easterly storms are common in the 2nd and 3rd months. Snow between the gth and 2nd or 3rd months, reaching a depth of 4 vershoks and lying from the 1 oth to the middle of the ist month. Slight, but frequent rain between the 3 rd and 9 th months.

The mountains were shrouded in thick mist that almost came down to our village, when we mounted our horses this morning. A storm from the W made the damp air still colder and more penetrating. The road from the little village followed yesterday's valley almost due N . The rise in the ground was perceptible. $11 / 2^{-1} 3 / 4$ miles from the village we left the valley, having almost reached its bottom, and rode up the slope on the right to Muzeiling, a small pass. Water boiled at $+88.6^{\circ}$.

We were enveloped in mist which prevented our secing more than a couple of horse's lengths in front, and the wind cut through our thickest clothing. The ascent and descent were gentle. On the other side of the pass we again took a N and NNE direction. At the foot of the pass 3 streams flowing from as many valleys combined to form a small river which we followed. It was said to flow to Chang-hsien and thus forms the first river in Wei's system. The mountains that enclose it are slightly steeper and higher further on than those we had left behind on the other side of the pass. At first there was practically no tilled land. $21 / 2$ miles from the pass our stream fell into another, flowing from the $S$. Nobody could tell me the name of either. A mile further N lay the village of Tjutien at a spot where 3 side gorges opened up, each providing its little river. The 45 houses of the village were inhabited by Chinese who lived by agriculture, although scarcely any fields were to be seen, but the valley grew wider to the N of the village and the greater part of the fields lay there. Our little river increased rapidly and was already $2-3$ fathoms wide. The ground was still very stony. The mountain slopes were covered with grass, a grey or red granite wall only being seen occasionally. I saw black mould in one or two places, otherwise only slightly sandy clay. The houses had roofs sloping in two directions, as in Europe, and mostly thatched. Stone was used still more generally as a building material. The villages looked poor. About $3 \mathrm{I} / 2$ miles from Tjutien we passed a larger village, Ta tsao t'an, of $70-80$ houses. The road and the gorge now took on a NE direction that turned E 2-2 1/2 miles beyond at the village of Liusa-pho. The road then went along the left slope, a few fathoms above the foaming little river. A few trees appeared in the river bed or quite close to it, but otherwise the whole neighbourhood was bare. After another $2-2 \mathrm{I} / 2$ miles' ride in an E direction we crossed the river that had now grown to a width of 3-4 fathoms, quite close to the village of Hsien-tien-tzu, where we encamped.

The journey to-day was not more than $17-171 / 2$ miles, though the local people call the distance 60 li. My thermometer had begun to depart from the truth of late, and while I was wondering how to make use of it in spite of this, the matter was settled in a simple manner. Tchao left it behind at Minchow and now I am unable to calculate the temperature.

Hsien-tien-tzu has 35 houses with Chinese inhabitants. - Wheat, tchinkho, oats, beans,


A 38-year old Tangut on horseback.
peas, potatoes, opium and hemp are grown. Average crop 3-4 fold. SW storms are common, especially in spring. Little rain between the 3 rd and 8th months. Snow between the $9^{\text {th }}$ and the beginning of the 3 rd month. Frequent mist during the 2 nd -4 th months. The quantity of livestock is said to amount to 60 head of cattle, $6 \rightarrow 7$ horses and $80-90$ sheep. - The sardis seen yesterday and today were built in a peculiar way. Cupboards, boxes, large clay dishes and other household utensils were placed along the walls in a barn-like room that occupied the whole house. To the right or on cither side of the door there was a small »kang» in the corner of the room. There was no ceiling. Other houses are built in the same way. - Rather a pretty coarse cloth of hemp is woven in the village.

April goth. It began to rain heavily yesterday later in the evening. There had evidently been snow in Chang-hsien. the mountains, as they were freshly covered when we started this morning. Near Hsien-tien-tzu the mountains look picturesque, rising in the form of high and steep granite walls from the narrow valley. For about 3 miles the valley describes a wide curve from the village and then continues in a NE direction. During this time the river is fed with water from several side gorges. The valley is scarcely 200 fathoms broad at its widest and is much narrower in other places. The mountains are high and considerably steeper than hitherto. Many of them are grey granite. There were several villages at the bottom of the valley, but with the exception of one of 30 houses, they are all insignificant. The fields are very small and incredibly stony. The houses are poor and small. You sec a lattice-work of twigs used as the inner frame of the clay' walls. The roofs are no longer thatched, but have a ridge as ours have. Small clumps of leaf-trecs can be seen between the villages and behind them. In one or two places, where the steep granite walls drop from a giddy height into the bed of the river, compressing it very much, the view is wild and beautiful. One of these occurs after the river has flowed in a NE direction for a little over i $1 / 2$ miles. The

place is called Shy myng guan and really looks like a gate hrough which the river flow between two almost perpendicular granite mountains. High up on a spur of the mountain on the left stands a Chinese miao, enclosed since the Dungan revolt by a crenellated clay wall. North of the ngaten the valley becomes much wider. In the village of Jekuchow about 2 miles beyond we crossed the river by a bridge.

The arbah road to Kung-Chang-fu gocs on along the left bank, but the road we followed on the right bank was no longer passable for arbahs. Soon after we had crossed the river, it joined the Chaku ho that flows from the $W$ in a broad bed of gravel framed by mountains. They flow on to the $E$ under the joint name of Chang-hsien ho, forming numerous branches in a bed of gravel about 200 fathoms in width. The valley now widens considerably and is at times over $11 / 2$ miles broad. The river displays a decided preference for the right bank and at first winds at the foot of its mountains until the latter are replaced by a terrace-like, partly tilled spur. On the opposite side there are large tilled fields with thinly scattered trees and many villages. On our side of the river, too, the road led through some villages of little importance until, towards the end of the day's journey, we reached the village of Yuanting of 300 houses. The mountains on the right, which had retreated slightly from the river for a few miles, had come nearer again and enclosed Yuanting in a large semicircle, the crown of which was decorated with a couple of temples and an old wall, behind which the inhabitants of the village sought shelter during the last revolt. We crossed 4 or 5 arms of the river in a NE direction.

A mile or two beyond Yuanting we reached the town of Chang-hsien. Surrounded by its unpretentious wall of pounded clay, its miserable huts give it the appearance of a village rather than a town. Nevertheless, it is the principal place of a ohsien" district of the same name.

The distance covered during the day was $19-20$ miles. With the exception of a few
miles along the right bank, which would be easy to adapt, the road is passable for arbahs. It is very stony for long stretches, occasionally rocky. - There was a high wind during the day and the upper parts of the mountains were enveloped in impenetrable mist. - The footwear of a Turkish pattern had been replaced by the usual Chinese shoes which make the feet much smaller. - The apricot trees were in full bloom, the sowings had shot up considerably and the trees had begun to have a shimmer of light green.

Chang-hsien is included in the Lungsi (Kung-Chang) hsien district and is divided into the following Shang-ja areas:
tja annual crop cattle horses mules donkeys sheep

| Vicinity of town |  | 2,000 |  | 1,000 | 200 | $55^{\circ}$ | 3,000 | 1,500 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| F. Hsiangsy cheng | 750 | 2,000 | " | 1,000 | 200 | 850 | 200 | 10,000 |
| Chaudja ping | 400 | 1,000 | " | 550 | 100 | 75 | 100 | 6,500 |
| Ko tsei | 450 | 2,000 | " | 850 | 200 | 70 | 100 | 6,500 |
| Ku mung hsia | $55^{\circ}$ | 3,000 | " | 850 | 100 | 75 | 100 | 8,500 |
| S Tyshy ku | $45^{\circ}$ | 2,000 | " | 650 | 100 | 35 | 200 | 6,500 |
| Malienthan | 250 | 850 | " | 350 | 100 | 55 | 100 | 3,500 |
| Sy tsu chuan | 650 | 3,000 | " | 1,000 | 250 | 100 | 200 | 1,000 |
| Li changsen | 350 | 1,000 | " | 650 | 100 | 75 | 100 | 7,000 |
| Asa tan | $55^{\circ}$ | 3,000 | * | 1,000 | 250 | 100 | 200 | 10,000 |
| W Shy kwan tsy | 450 | 1,000 | " | 850 | 200 | 100 | 200 | 8,500 |
| Phitja chuang | 250 | 750 | * | 350 | 85 | 65 | 100 | 2,500 |
| Han tja chuang | $45^{\circ}$ | 1,000 | * | 750 | 200 | 45 | 100 | 7,500 |
| Sy kei thu | $35^{\circ}$ | 1,000 | " | $45^{\circ}$ | 100 | 75 | 100 | 5,500 |
| Santa | $75^{\circ}$ | 3,000 | " | 750 | 200 | 100 | 200 | 10,000 |
| N Pheifangliang | 200 | 650 | " | 100 | 75 | 35 | 75 | 1,000 |
| Chang tja san | 250 | 850 | * | 200 | 85 | 55 | 100 | 1,000 |
| I hu Yuan | 100 | 550 | " | 100 | 65 | 35 | 100 | 1,000 |
| Mei nju ho | 200 | 850 | , | 200 | 75 | 45 | 100 | 1,500 |

The town with its surroundings, including Yenting, consists of 5-600 tja. Yenting produces salt obtained from wells, which is sold to Taochow, Minchow, Kung-Chang-fu, Fu-Chang-hsien and other places to the value of about 100,000 taels a year. Besides, herbs are sold for medicinal purposes (tangku, tjindjao, huang-tchi, kants'ao) to the value of 1,000 taels annually. - Wheat, barley, tchinkho, oats, beans, peas, potatoes, tchumiza, opium and apples are grown. The average crop is 3 fold in the $N, 3-4$ fold in the W , $5^{-6}$ fold in the $E$ and $6-7$ fold in the $S$. The annual taxes amount to 300 tan of grain and 2,400 taels. - Storms occur in the ist-3rd months, mostly from the SW, but rarely in general. Snow between the 8th and 2nd months - does not lic. Rain between the 3rd-8th months.

My cook had a good deal of trouble yesterday in securing even very modest night quarters for us. The houses, on which the signboards of inns appeared, were such filthy hovels that I preferred to ensconce myself in a litter or an arbah. At last the cook April ${ }_{1}$ Tynglja discovered a dirty little house in a back street, but as soon as we got there the old hag who owned it began to raise objections. She refused to let me have the okangs in the only possible room and all the persuasion and amazing patience of my Chinese proved unavailing. However, I hit upon the right way and said that I had no objection to sharing the kang with her. With a volley of oaths the old hag snatched up her blankets and disappeared into another building. We went through a regular nightmare. She ordered us about the whole evening, picked quarrels and made no end of fuss, so that it was with a sigh of relief that I pulled on my fur-coat this morning and shook the dust of the place off my shoes. The mandarin, who had provided me with smoked mutton and pork yesterday, had ordered out no less than 4 "jais" to escort me. If it was his intention that they should be of some use to me, I am afraid that he failed in his purpose, for they were almost the worst I had ever had - and that is saying a good deal.

It was still cloudy, there was a dense mist halfway up the mountains and a cold west wind was blowing. - From the gate of the town we proceeded in a SE direction towards the river and soon left the strawberry and cream coloured apricot flowers of the suburb behind. The ground on this side of the river, plentifully irrigated, was of reddish löss, the chain of mountains approximately $1 / 3$ of a mile $N$ of the town being brick-red and bare. There was only an occasional small green slope, on which this year's grass was beginning to show. We crossed the river about $2 / 3$ of a mile below the town at a place where it flowed in 3 branches. The largest was $8-9$ fathoms wide at 6 a.m. and the water came $3 / 4$ of the way up my horse's legs. The current was swift and the bottom firm and slightly stony. The mountains and the ground on the opposite bank were grey, like yesterday's, and consisted of rather stony clay and löss. Here, too, we passed through rows of fruit-trees and across many irrigation canals. Following the river, or rather, the mountains on the right bank, we rode on in an ESE direction. The valley, a mile or two in width, grew rapidly narrower. About 7 or 8 miles from the town it was already confined between spurs of the mountains and the road took us along a narrow ledge a good many fathoms above it. This place, called \#Shao shy hui», with its steep mountain sides and red, green and other colours, would have been beautiful in another light. As it was, everything looked grey and dull. "Kekliks" were cackling both above and below us - we longed to dismount and devote an hour or so to shooting, but were told the road was rough and the distance to be covered during the day was long.

Coming down from the slope, we crossed the river again close to the little village of Sungdjahsia. In an instant Tchao, the drivers of the pack-horses and the wjais" had stripped to the waist and plunged into the foaming river that flowed in a single arm and reached our horses' bellies. For a time we followed a low ledge of the mountains on the left bank. They were still red and seemed to be of sandstone. Then we cut across an open, cultivated and inhabited plain, about $2 / 3$ of a mile in length, and again followed a ledge of a fairly steep spur of the mountain. On its summit we saw a picturesque miao with many buildings,
while the river roared far below our path. In this way we continued throughout the day. At times the road led us across a tilled valley with closely growing fruit-trees, at others over or round a projecting spur of the mountains. The ledge was mostly narrow and slippery, the climbs up and down were steep, though by no means breakneck. The road can only be used by horsemen and pack-animals. The mules of the litter and their drivers, a couple of bright Chinese from Lanchow, were admirable and manocuvred with superb skill and coolness in places, where I could not have believed it possible for them to move. When we dismounted and led our horses by their bridles, they drove the heavy and clumsy object with merry cries as if it were a dance. At the village of Tataku, about 14 miles from Chang-hsien, we crossed the river twice in immediate succession. At midday it was quite to fathoms wide and the water just came up to the packs. - During the greater part of the day's journey the river hugs the right bank, where the tilled fields were far smaller than on our bank. The houses in the villages had been newly built and their roofs only sloped on one side. They were small and stone did not seem to be used any longer in building them. The inhabitants looked frank, kindhearted and rather pleasant. You see no handsome people, but also no very plain ones. Their eyes are seldom slanting. Most of them are of medium height, but quite a number were above it. - Alter covering quite $20-2 \mathrm{I}$ miles we reached the village of Tyngtja myng, where the Chang-hsien ho joined the Chinsi ho flowing from the south. It flowed in a valley at least as large as the one we were following and was said to pass Pumali and Chinsihoa. The road that branched off from ours a few miles E of Minchow leads along it. - At Tyngtja myng snow falls between the 8th and the middle of the $3^{\text {rd }}$ month, but melts immediately afterwards. Rain between the 4 th and 7th months, varying greatly in quantity in different years. Easterly burans in spring.

April 1 th. It began to drizzle yesterday, but during the night there was heavy rain. The soft Liohmen ground was soaked when we started, and the paths and ledges were as slippery as smooth ice. village. In climbing up and down our horses often slid and fell, while the mules of the "tjao" managed excellently. The valley had widened again and was over $2 / 3$ of a mile broad in some places. After a couple of miles it grew very considerably narrower once more, but became broader immediately after, even more than before. Here the Chang-hsien ho ran into the Wei ho flowing from Kung-Chang-fu. The latter was 15 - 18 fathoms wide; the one we had followed flowed in two arms here, each $16-17$ fathoms wide. The current was swift. The water in onc arm came up to the horses' bellies, the other we crossed by a poor bridge. Up to this point the road had been a bridle-path and ran mostly along the lowest slope of the mountain on the left. The valley was cultivated during the whole of this distance and its course was NE. There were rice fields in the bed of the river, under water at present. We met some flocks of geese, apparently on their way north.

At the confluence of the rivers about 6 miles from our last camping place we came to a large village, Yöjengtzy, where the road debouched into the main route southward from Lanchow. Here things were quite different. From the height of our road we had an excellent view of the valley and could observe from a distance the traffic on the road that crossed the river. Small groups of 4 or 5 arbahs in Indian file crawled laboriously over the rather


Impromptu sketch by a Tibetan encountered on the road, who had never seen European paper nor had a pencil in his hand.
marshy ground, soaked by the rain, while caravans of mules passed each other at a rather better pace. A little further on the sound of the mules' bells reached us, accompanied by the soft tolling of those on the arbahs, sounding wonderfully melodious among the hills.

We were once more on a main route with deep wheel-tracks cut into the soaking soft earth. A train of heavily laden arbahs had been stopped by one that had sunk in too deep. With wild cries the beasts were being driven to do their ut most with the help of 3 mules taken from the shafts of the next arbah. We met and overtook small caravans. The elegant, plump mules, turned out as though for a prize show, were allowed to move frecly and pick their own way. The packs were arranged and tied with true Chinese precision, delightful to see. A village lay on the other side of the river at the foot of the mountain. Small trays or tables were placed outside the houses with various supplies, bread, lapsha, nuts, pears, sandals of string etc.

A road led us in sharp curves to the top of the mountain. Barometer No. I 6ro.8. Ascending and descending is convenient for horsemen, but very trying for arbahs, but we were not spoilt and managed. From the top there is a lovely view, or rather, two: northward over the valley we had left and over the valley of the Wei ho. Having joined forces,

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the two rivers go on in an ENE direction and further on you see them being shut in by mountains. Escaping from these, they take a southerly course and describe a wide curve and disappear in the N or NE in the far distance. At the foot of the mountain on the other side lies a small village, named after the river, Kuanlupho. - The sun had broken through the clouds and the scenery was delightful. The river, 25 fathoms in width, wound along a valley of $1-2$ miles' breadth, framed in high mountains of löss. These were no longer the same grey, bare and ugly mountains, but slopes reflecting various shades of green according to the height, to which the grass had come up. Here and there the green colour was broken by a patch of red or grey. The slopes either dropped gently to the valley or in the familiar tilled terraces. Down in the valley, where cut willows were planted in rows, an endless scries of green shades delighted our cyes, from the pale green leaves of the willows to the rich green of the crops and the clark verdure of cedars or cypresses, cut in the shape of cones, in the cemeteries. High on a hill stood a tower like a lighthouse and on another the ruins of one of the forts in which the population sought shelter during a revolt. Far off, where the river turned, the irregular wall of Ning yuan was outlined against the mountains like an ancient ruin. Crowds of pedestrians and horsemen moved about, now a woman in bright colours on a donkey led by her husband, then again a person in blue with enormous spectacles and a red oilcloth umbrella, all contributing to the riot of colour.

10 miles before Ning yuan we passed the village of Santa ho on a tributary of the Wei ho. - At Ning yuan we merely stopped to feed our horses and ourselves, in li from the town we passed a small village, after 15 li Tyngtja kei, 2I li Myng tja chang and finally after 30 li we reached our goal at Liohmen, a village of about goo houses. It lies on the river Nan ho, a tributary of the Wei ho from the south, and is inhabited exclusively by Cihinese. Trade is lively, but purely local. The only article exported are straw hats with very wide brims. They are supplied mostly to Tsinchow. - Snow between the gth and 3 rd months, but melts at once. Rain plentiful between the 3 rd and 8th months. Burans do not occur, but strong cast winds in spring. - Wheat, tchumiza, millet, opium, rice, tchinkho, barley, gaolyan, huma, tchau mi (?), mustard, peas and beans are grown. Average crop 7 fold. The distance covered to-day was $26-27$ miles.

The Ning yuan hsien is subordinated to Kung-Chang-fu and is divided into the following li:
tja annual crop cattle horscs mules donkeys sheep

| Town and surroundings - |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tsei cheng li | 1,100 | 5,500 |  | 1,000 | 100 | 45 | $55^{\circ}$ | $45^{\circ}$ |
| E Lingweili | 2,000 | 10,000 | " | 3,000 | 550 | 200 | 1,000 | 10,000 |
| Weihsien li | 100 | 400 | * | 100 | 75 | 35 | 100 | 850 |
| Yungnan li | 1,000 | 5,500 | " | 1,000 | 250 | 75 | 850 | 8,500 |
| Shengili | 500 | 2,000 | " | 1,000 | 100 | 75 | 65 | 4,500 |
| S Wing ingli | 1,000 | 4,000 | * | 850 | 200 | 75 | 200 | 7,500 |
| Chengsangenli | 370 | 1,000 | " | 350 | 65 | 25 | 200 | 3,500 |
| Yeng tyngli | 1,000 | 4,000 | * | 850 | 200 | 35 | $55^{\circ}$ | 6,500 |

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|  | tja | annual crop | cattle | horses | mules | donkeys | sheep |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hualingli | 1,000 | 4,000 tan | 850 | 200 | 35 | 350 | 6,500 |
| Lifengli | 450 | 3,000 \# | 750 | 100 | 35 | 35 | 5,500 |
| W Tseitungli | 3,000 | 15,000 | 4,000 | 1,000 | 450 | 2,000 | 55,000 |
| Tsingpingli | 4,000 | 20,000 | 5,500 | 650 | 650 | 2,000 | 55,000 |
| Wingtchuenli | 2,000 | 10,000 " | 1,000 | 650 | 250 | 1,000 | 25,000 |
| Veifuli | 200 | 1,000 | 100 | 55 | 35 | 100 | 3,000 |
| N Kingshuli | 10,600 | 65,000 " | 20,000 | 1,500 | 850 | 10,000 | 35,000 |
| Vei yang li | 10,000 | 55,000 | 10,000 | 1,500 | 1,000 | 7,500 | 15,000 |
| Paoyuenli | 1,000 | 5,000 | 1,000 | 250 | 85 | 750 | 10,000 |
| Weisengli | 450 | 3,000 \# | 300 | 85 | 35 | 300 | 6,500 |

Wheat, barley, tchinkho, peas, beans, oats, opium, potatoes, tchoumi (?), millet, tchumiza, rice, mustard, tobacco and fruit are grown. Average crop in the E 7-8 fold, in the $S_{5-6, ~ i n ~ t h e ~}^{W} 6-7$ and in the N 8-9. - The annual taxes yield 1,020 tan and 5,600 taels, customs duty 5-600 taels. - Medicinal herbs (tseihu, shungma, tangsyng, teihuang, shuo uo, tsindjao, kants'ao, mahuang, ujuo etc.) are exported annually to the value of $20-30,000$ taels. - From Ning yuan a bridlepath leads southward over Li hsien to Sytchuan. Trade only local and small. The greater part of the merchandise is obtained from Tsinchow. There is a military detachment quartered in the town.

Immediately to the $E$ of the village we crossed the Nan ho, which was 6 fathoms wide here, the water coming up to our knees. The bottom was firm and the current swift. The village of Tchudja chow with 70 houses lay on the other side. The road went on in an ESE direction closer to the mountains on the right than the river, which was only visible occasionally at some distance. The ground was the same as yesterday, but there were more trees. In many places the road had cut a deep channel in the ground which, in combination with the trees, limited the view very much. The landscape was not so full of colour to-day as it was yesterday. After 8-9 li we passed through the village of Tientahan. 15 li from Liohmen the road was again intersected by the Sie lan ho, a tributary of the Wei ho from the S . It flowed in 3 branches, the total width of which was 5 - 6 fathoms. The water came about $3 / 4$ of the way up the horses' legs. 5 li beyond a series of villages began, bearing the traditional nomenclature according to distance, one of them a huge one of 900 houses. We were 50 li from Fukiang and the village was named U-shih-li-pu (the village on the 50th li). i li further on we crossed another small tributary. Shui-shih-li-pu, a village of 65 houses, lies at the foot of a spur of the mountain, from which it is separated by a small river. At 36 and 40 li from our starting-point there were 2 villages, both called San-shih-li-pu, with 250 houses altogether. The valley was now not over $2 / 3$ of a mile wide and the road ran quite close to the foot of the mountains. Another little river flows past the second of these villages. Immediately to the E of it two small branches of the Wei ho reach the mountains. Here the ground was marshy for a distance of $\mathrm{I} / 3$ of a mile. The mountains on the right were quite close to the road. They looked as though they were of red sand-
stone with hollows of fantastic outline made by wind or water. A little further on we passed Ehr-shih-li-pu with 300 houses and a few li beyond Mau sy with 8 and Shih-li-pu with 200. The mountains on the right were steep and beautiful with several rounded peaks. We were now 3-4 li from the town of Fukiang. High up on the slope there was a succession of not particularly picturesque temples built in the easily handled wall of earth. From one of the larger ones a colossal Buddha, extending through three storeys, looked down upon us with a shining, gilded face. The name of the temple is Tafasy and there is a legend that he grew up during the time of the Emperor Fusi. Other temples and tall towers decorate the summits of the mountains in the vicinity of the little town. - The road turned south and led us into a side-gorge about $2 / 3$ of a mile before reaching the town. - In the country we passed through to-day wheat, millet, tchumiza, maize, gaolyan, peas, cotton, huma (an oil plant), rice, mustard, tchinkho, kunsjut and opium are grown. Average crop 7 fold.

After taking us a couple of miles southward along the valley, the road crept up the mountain on the left. The ascent and descent were easy. For a considerable distance we travelled along the ridge itself, where there were a couple of villages. It took us quite two hours to negotiate it. Main direction SE. At the highest point the barometer No.i indicated 608.3. After 33 miles ( rool li) we reached the village of Kuan-tzu cheng at the foot of the mountain, quite a little town, when seen from above. It contains $4^{00}$ houses inhabited by Chinese. Wheat, peas, tchumiza, millet, opium, kunsjut, rice and huma are grown. Average crop $6-7$ fold. There are said to be no burans, but high west winds in spring. Snow falls between the loth and 2nd months, but does not remain on the ground. Rain between the $3^{\text {rd }}$ and 9 th months, though not very plentiful. We were now in the valley of the Si ho, a tributary of the Wei ho.

April 13th $^{\text {th }}$. Just outside the village the road took us across a river, 3-4 fathoms in width and Tsinchow. of no great depth, and we went on chiefly in an $E$ direction. We had to cross the river several times and for about half its length the road goes along the actual stony bed of the river. In its broader parts the valley is about $2 / 3$ of a mile wide, but the bed of the river encroaches on it considerably, so that a large part of the tilled fields are high up on the slopes, which are often very slightly inclined and well suited to the purpose. They are almost bare. The only trees visible are small groups of cypresses that indicate the sites of burial grounds. In the valley, too, there are not many trees. The monotony of the landscape was accentuated by a grey and damp light and during the latter half of the journey by light rain. The villages we passed did not look either attractive or prosperous. Counting from our starting-point to-day they lie at the following distances: $\mathrm{I}_{5}$ li Thashy tsui with 3 houses; 20 li Liu-shih-li-pu $4^{\circ}$ houses; 30 li U-shih-li-pu 50 houses; 40 li Shui-shih-li-pu; 46 li Huangdja vanza 100 houses; 50 li San-shih-li tiedza 70 houses; 65 li Lidja teitza 100 houses and 74 li Wang tjamuo to houses. io-12 li from Kuan-tzu cheng the mountains force their way into the river bed, but a mile or two beyond, the valley widens again to its former size, if not slightly more.

In several places the road is rather marshy. We noticed deep wheel-tracks, but did not meet any arbahs, though people on foot were seen constantly. The number of porters increased

The Nanshan miao at Tsinchow with a thousandyear old lree and a ruin in the courlyard.

daily. They carried considerable loads piled up on a high stand fastened to their backs. From time to time they stopped and rested, supporting their loads on sticks that they carried in their hands. Others moved with short, quick steps, balancing loads at either end of a springy board, which they often shifted from one shoulder to the other behind their necks. One of them carried three solid Chinese tables of considerable size that looked anything but light. It is curious that none of these porters seem to have strongly developed muscles. All the women I saw during these days wore a blue veil over their faces. They wore wide, coloured, skirt-like trousers that almost hid their feet, as they rode with slightly drawn-up legs.

The river receives a large tributary from the S , and soon after we reached the town of Tsinchow after riding about 27 miles. It is scarcely noticeable as you approach it, as it is enclosed by a fairly large, though scattered, suburb.

There is nothing in the town, considered to be the cradle of the Tsin dynasty, to indicate its ancient history. Two places, a few li to the E, are shown, where formerly two towns of the same name stood at various times. On the top of a hill in the N , some mounds of earth are pointed out as the remains of a town that bore the name of Huang-cheng. It is said to have been founded during the Han dynasty by a nobleman of the name of Weisio, who achieved considerable, though not absolute, independence and had no less than 31


Cleaning tobacco on a factory roof at Tsinchow.
chieftains under his sway. His warlike exploits carne him a great name. The people speak of him as of an emperor and his name is cen known to children in the neighbourhood of Tsinchow. A bric-àbrac shop sells various cups and pieces of china reputed to have been discovered during excavations at Huang-cheng. In Hsikuan there is a temple called Fusi (Fouhi) mao, the founding of which is ascribed, rightly or wrongly, to the Ha dynasty which, so the Chinese believe, reigned before the Flood ( 2,205 B.C.). The temple that stands there now, in the shade of large cypresses, is of no great age, nor are there any stones with inscriptions there dating further back than the Ming dynasty. Inside, the temple is rather empty. Fusi is seated in the centre in three different sizes, one very large, one small and one tiny. He wears a curious dress reminiscent of fish scales. Before him, behind a couple of fences, stand on one side the millstone with which he taught the Chinese to grind and on the other his fiery steed that was brought forth out of the water. In proof of his origin he is depicted with a head of scales.

A beautiful temple called "Y then guan is situated at Peikuan, or rather, on the slope just outside the suburb. There is said to be a sword there weighing 700 djin that belonged once upon a time to a hero, who was called Lingukuan after his death. - In another temple dedicated to Laotjyn there is a stone with an inscription of the T'ang dynasty and $\notin$ of the Sung dynasty. - A few li from the town there is a set of mao buildings on the slope of the S mountain, Nanshan miao, with the ruins of a tower, destroyed by an earthquake, ascribed to the T'ang dynasty. In the courtyard two old, very crooked, but not very thick cypresses are shown that are also ascribed to the time of the Emperor ' $\Gamma$ 'lng. 'The main building of the temple is occupied by a large image of Buddha of painted and gilded clay with an exposed, swelling stomach. This is a curiosity, because he is depicted laughing with his mouth wide open and an indescribably voluptuous expression. But the figures that look anything but voluptuous are four individuals of stern appearance and with rolling eyes, who decorate the two end-walls of the building, each one pressing

his left foot on a wriggling frog or human being with, if possible, a still less voluptuous expression. One of the side-buildings contains a large sleeping Buddha, though far smallei than the one I saw at Kanchow. Somcone told me that, according to a legend, three brothers arrived at Tsinchow once upon a time. One of them feil asleep, another sat down to rest on the brow of the hill near Fukiang and the third, anxious for the fate of his brothers, climbed over and fell down a hill near Fukiang, where the outlines of his body and legs can be seen to this day. - Not far from the Nanshan miao there is an old cemetery, where Lihuang, a general of the time of T'ang, is supposed to have been buried.

With the exception of these temples, which are supposed to date back to very remote times, there is nothing interesting to sec. The streets are embellished with a few "peilu" that bear witness to the deeds of former inhabitants. These and the tiled ronfs of the houses brighten up the town and give it an old-world appearance. The town, including the suburbs that adjoin it, is 2 to $21 / 2$ miles long and probably about $11 / 2$ miles at its broadest. Since the Dungan revolt the Taotai, who was formerly resident in Minchow, has his seat here. Tsinchow chow, Kung-Chang-fu and Kiechow chow are subordinated to him. Tsinchow chow embraces Tsinghan hsien, Huihsien, Liangtan hsien, Tsinghui hsien and Sentsa ting. - An in of ntchyping" is quartered in the town under the command of a Juti, who is said to be subordinated directly to the Tidu at Kuiyuan.

The missionary prefecture of Southern Kan Su, containing scarcely io congregations, is situated here. Unfortunately, I was unable to make the acquaintance of the prefect Terlak. As he had to be present at a synodal meeting of bishops at Hsing fu, he had taken the opportunity of making a tour of inspection in his diocese and had not yet returned. A younger and very charming missionary, Demaret, a Walloon by birth, did the honours not only in the large new and pleasant buildings of the prefecture, but also to a great extent on my visits to other parts of the town. Two padres had left on the morning of my arrival, two others on the following day and Demaret's solitary companion was a padre who was reco-
vering from a recent attack of rheumatic fever. He had been cured by a Chinese doctor with decoctions of herbs. He assured me that he began to feel the effects of the medicine in a few hours. The pain had begun to change its seat and in 2 or 3 days it was almost gone. A similar attack would have required 2 or 3 months' treatment in Europe. Father Damaret told me the sad news of the death of two more of my friends among the priests in Bishop Otto's diocese. Typhus had carried off a young priest, Keirkhofs, who was in charge of the congregation at Lianchow during my stay there and who had made an uncommonly favourable impression on me. It seems strange that Roman Catholic missionaries should not be permitted to study medicine. - The British mission is presided over by Mr D. A. Gordon Harding, a stout, jovial man, his wife and three daughters, whom I did not see.

The town carries on a lively trade, probably livelier than any other place in Southern Kan $S_{u}$, though in recent years it has fallen off. One of the causes is the increase in the likin tax introduced 3 years ago (the likin was raised not quite $50 \%$; the opium tax was simultaneously fixed at to times the former rate). This year an attempt had been made to raise the likin tax still more, but the merchants had succeeded by means of joint representations in warding off the danger. The number of large businesses is said to be not more than half of what it used to be. - The introduction of the "tungdziuandziy" has proved a benefit to trade. This entitles business men to obtain certificates in some of the larger places, which are considered valid in other provinces. In spite of this, however, merchants are taxed under various pretexts even in the places they have to visit in passing.

According to information obtained at the local likin station, the principal exports consist of opium, amounting to about $2,200,000$ liang (in weight) annually (the annual likin is about I50,000 taels). Opium is not only produced locally, but also in the surrounding district and is mostly despatched via Shensi and Taigung to Shanghai. Lambskin 6-700 tan to the value of 400,000 taels, also from the surrounding district and sent to Shanghai. Wool from the immediate neighbourhood 6-7,000 tan to the value of 200,000 taels is exported, too, to Shanghai. 4-500 tan of hides to the value of 200,000 taels are supplied to Tientsin. Medicinal herbs, wooden vessels, brooms, baskets, string shoes etc. are sold to the value of 300,000 taels. The herbs are sent to Shensi, Hennan, Sytchuan and „Kouwei», the rest to Lanchow and Southern Kan Su.

Imports consist of: coarse cotton cloth ("lopu») about 8-9,000 tan to the value of $3-400,000$ taels from Shensi and Hunan; silken cloth, print and various articles i,000 tan to the value of $3-400,000$ taels from Shensi and Peiping; silk and sundry goods $1-2,000$ tan to the value of 200,000 taels from Sytchuan. About $60 \%$ of the imported goods are sold in Tsinchow, the rest being sent to other parts of Southern Kan Su. - A large part of the transit goods, such as wool etc., from the neighbourhood of Taochow and further west is not included in these figures.

The town consists of 5 connected fortresses, Pei, Tung, Hsi Kuan, Pyng and Tsung cheng. I was told that the population amounted to $70,000 \mathrm{tja}$ (Wang; of these 40,000 merchants); 30,000 tja (according to the priests) and 70,000 inhabitants (British mission of them 5,000 Dungans).

|  | tja | annual cras |  | oxen | horses | mules | donkeys | P |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Town and vicinity | 30,000 | 200,000 | $\tan$ | 25,000 | 10,000 | 8,500 | 20,000 | 35,000 |
| E Mapoutsuan | 10,000 | 100,000 | * | 10,000 | 3,500 | 3,500 | 10,000 | 65,000 |
| Sheitangdsjyng | 6,500 | 65,000 | * | 5,500 | 1,500 | 1,000 | 4,500 | 35,000 |
| Ketsuensu | 8,500 | 75,000 |  | 6,500 | 2,500 | 1,000 | 5,500 | 45,000 |
| Keit sydsjyng | 8,500 | 75,000 | , | 7,500 | 1,500 | 1,000 | 4,500 | 45,000 |
| Peijangnanpei | 10,000 | 85,000 |  | 7,500 | 3,500 | 2,500 | 5,500 | 65,000 |
| Ts'aotchuanpu | 5,500 | 55,000 |  | 4,500 | 1,000 | 1,000 | 3,500 | 45,000 |
| Yentsuitho | 3,500 | 35,000 |  | 1,000 | $75^{\circ}$ | 550 | 1,000 | 45,000 |
| S Tieshuidsjung | 10,000 | 100,000 | * | 10,000 | 4,500 | 3,500 | 10,000 | 65,000 |
| Sutja tien | 6,500 | 65,000 |  | 5,000 | 2,000 | 1,000 | 3,500 | 45,000 |
| Pingnantchuan | 7,500 | 65,000 |  | 6,000 | 2,500 | 1,000 | 5,500 | 35,000 |
| Njangnjangpa | 5,500 | 55,000 | , | 4,500 | 1,000 | 1,000 | 3,500 | 45,000 |
| Mutenjyen | 7,500 | 55,000 | * | 6,500 | 2,500 | 1,000 | 4,500 | 40,000 |
| Litiyen | 7,500 | 75,000 |  | 5,500 | 2,000 | 1,000 | 5,500 | 55,000 |
| 'Tsing-shih-li | 10,000 | 100,000 |  | 8,500 | 3,500 | 2,500 | 7,500 | 85,000 |
| Kaotschouguan | 10,000 | 100,000 | , | 75,000 | 3,500 | 2,000 | 6,500 | 75,000 |
| W San-shih-lidsjyng | 2,500 | 25,000 |  | 1,000 | 850 | 3,500 | 1,000 | 35,000 |
| 'Tilupa | 10,000 | 100,000 | - | 7,500 | 4,500 | 1,000 | 6,500 | 75,000 |
| Kuandzycheng | 3,500 | 25,000 | , | 1,000 | 750 | 550 | 1,000 | 25,000 |
| Yangtjasy | 6,500 | 55,000 | * | 4,500 | 3,500 | 1,000 | 4,500 | 65,000 |
| N Luivangtzu | 10,000 | 100,000 | " | 7,500 | 4,500 | 2,500 | 6,500 | 75,000 |
| Hsiungtzutsei | 7,500 | 75,000 | * | 6,500 | 3,500 | 1,000 | 5,500 | 55,000 |
| Shyfodsyng | 10,000 | 100,000 | * | 7,500 | 4,500 | 2,500 | 6,500 | 85,000 |
| Tingtja tji | 4,500 | 50,000 | " | 3,000 | 1,000 | 8,500 | 2,000 | 20,000 |
| Jehocheng | 8,500 | 85,000 | * | 6,500 | 3,000 | 1,000 | 5,500 | 75,000 |
| Jyemyngcheng | 7,500 | 80,000 | " | 6,500 | 3,000 | 1,000 | 5,500 | 75,000 |
| Teipeimiao | 6,500 | 60,000 | " | 5,500 | 2,500 | 1,000 | 8,500 | 45,000 |
| Hsingtyngdsjyng | 10,000 | 100,000 | * | 3,500 | 2,000 | 1,000 | 6,500 | 85,000 |

Wheat, barley, tchinkho, oats, peas, beans, maize, rice, gaolyan, potatoes, opium, tobacco and nuts and fruit are grown (grapes do not ripen). Average crop in the E 7-8, in the S 6-7, in the W 6-7 and in the N 8-9 fold. - Taxes 10,360 tan of grain, 14,000 taels in silver and 700 taels in bazaar taxes. A large part of the population is engaged in caravan traffic.

After two days' rest there was nothing to detain me at Tsinchow. Old Litui called on his way to the priests to have his French lesson and gave me two of the four maps he had promised me, bringing them at the very moment when my cases were being closed. The

April $I$ Shuital village. others were to be sent on.

The road led eastward. About $2 / 3$ of a mile from the town we crossed the Sei ho, flowing here in 7 branches of very slight depth. The 3 larger ones are $21 / 2$, the other
four 1 -2 fathoms wide. We went on castward rather closer to the S mountains, while the river approached the N mountains considerably and could be seen now and then flowing at a distance of $1 / 3-2 / 3$ of a mile from the road. The valley is $11 / 2-2$ miles wide, densely populated and cultivated and covered with leaf-trees and fruit-trees. The long slopes of the mountains, cut up into terraces, are cultivated almost to their summits. Some villages were visible on the slopes, and higher up a wall of one or two deserted fortresses. The road was good and perfectly passable for arbahs. For the greater part it runs in the shade of two rows of leaf-trees. A couple of river beds from the S , dry at present - tributarics of the Sei ho -- crossed the road. The sowings had shot up considerably, being several inches in height on some fields. The mustard was in bloom and all the trees were green. The road ran through a number of villages, two of which were large, though there were only a few houses on the road itself. We reached Mapochuan, a village of $800-1,000$ houses about 14 miles from the town. Its bazaar street with its white sunshades ran along our road for about $2 / 3$ of a mile. It was seething with people and animals. To the E of it the road became desertecl. We met no more of the mules, horses and donkeys laden with charcoal, pieces of wood, small planks and baskets, that had filled the road almost uninterruptedly between the last village and the town. 3 miles from the village we came to the sandy bank of the Wei ho, a short distance below its tributary Njuthu ho, which comes from Tsingshui. The Sei ho had united with it without my noticing it from the road. The river is $200-250$ fathoms wide at this place and its depth was up to our knees. It flows quietly and its bottom consists of loose sand in some places. There were two big ferries, built with low sides and with bows and stern sharply inclined upwards. They were worked by a crowd of more or less naked individuals who either ran about in the water, shoving barges with loud cries or stood on the vessel with long poles in their hands. To reach the ferry you have to climb on to the back of one of these men, who carry you with ease. The crossing took about an hour.

The village of Shuitang Ching, where we spent the night, is about $2 / 3$ of a mile from the landing place. The distance covered was 15 - 16 miles. Shuitang Ching and its surroundings consist of $1,200 \mathrm{tja}$. The livestock consists of 250 head of cattle, 100 horses, $55^{\circ}$ mules, $45^{\circ}$ donkeys and $\mathrm{I}, 000$ sheep. - Hemp, gaolyan, wheat, peas, beans, maize, opium, millet, tchumiza, mustard, potatoes, rice and some cotton are grown. Average crop 4-5 fold. Cultivation is done with rainwater. - Easterly storms occur in the 2nd month, but not always. - Rain is rare between the 2nd-roth months. - Snow between the middle of the toth and the middle of the 2 nd month, but it melts in 2 or 3 days.

April 17th. Tsingshui.

We proceeded along the foot of the mountains that rise just outside the village in the N . In company with them the road describes a curve, open to the $S$, for about $21 / 2$ miles. The ground fell away on the right and occasionally we caught a glimpse in the distance of the brown surface of the Wei ho. From there the course was NE and ENE. With a couple of intervals, during which the road runs for some time on a level, we rode up a slope, fairly steep in places, wedged between two rivers - on the right the Wei ho, flowing cast between mountains, and on the left another river, flowing in another valley to the $S$
or SSW, presumably the Njuthu or Tsingshui ho. We reached the highest point about $8_{1 / 2-9}$ miles after beginning the climb. Aneroid No. 1 indicated 6oo.8. The view was especially lovely during the short time while the two river valleys lay at our feet, but later, too, it was extensive, though rather monotonous. A mountain landscape was disclosed on all sides, long ridges of löss, mostly cultivated, and separated from cach other by deep valleys. About $2 / 3$ of a mile before reaching the top we passed a large village, Ts'ao chuan pu, of 80 houses. Those we had passed through before were small. The descent along a narrow gorge between steep mountains was fairly easy, but long. A stream wound its way at the bottom. The mountains were mostly of löss, but occasionally a wall of granite was visible, having forced its way through the outer layer of earth. The road runs mostly along the bottom of the gorge or about a metre above it. A few leaf-trees grew in one or two spots at the bottom of the valley. The slopes were bare and mostly untilled. In the course of over 7 miles we only passed one small village, Ehr-shih-li-pu. Towards its mouth the valley widens slightly and the stream flows in a bed of gravel and stones, about 20 fathoms broad. At the place where it runs into the valley of the Tsingshui ho, the ruins of a fortress wall appear on a hill on the right, said to belong to the time of the Taiping rebellion. Just below it lies the town of Tsingshui, surrounded by a neglected ditch and wall of clay with a crenellated parapet and a few small bastions. The town is $1 / 2$ mile from W to E and slightly less from N to S . In the W and E there are small suburbs. The distance to-day was 22-23 miles. - The district mandarin (hsien) is resident in the town. A detachment of 20 men of the Tsinchow in is quartered here. - The Rev. P. A. Vanhaute is in charge of the Roman Catholic mission station.

Tsingshui hsien (subordinated to Tsinchow Chow) in the neighbourhood of the town slightly over 1,000 tja ( 600 tja are engaged in farming):

|  | tja | annual |  | cows | horses | mules | onkeys | sheep |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| E Tungpapu | 850 | 7,500 |  | 250 | 200 | 100 | 450 | 3,500 |
| In the town | 600 | 5-6,000 | " | 350 | 150 | ${ }^{1} 50$ | 550 | 2,000 |
| T'anginpu | 750 | 6,500 | " | 350 | 200 | 100 | 450 | 3,000 |
| Peisaching | 1,000 | 8,500 | " | $55^{\circ}$ | 250 | 200 | 550 | 3,500 |
| Jejangching | 850 | 7,500 | " | 350 | 100 | 200 | 350 | 2,000 |
| Sanmyngching | 1,000 | 8,500 | " | $55^{\circ}$ | 350 | 350 | 450 | 6,000 |
| Petjaching | 750 | 7,500 | " | 300 | 200 | 200 | 450 | 6,500 |
| Pheilung ching | $55^{\circ}$ | 4,500 | " | 350 | 200 | 200 | 250 | 4,500 |
| S Muorsja | 300 | 2,000 | " | 100 | 85 | 100 | 200 | 1,000 |
| Inanpu | 1,000 | 8,500 | " | 350 | 250 | 250 | 350 | 6,500 |
| Chowchuen | 1,000 | 10,000 | * | $55^{\circ}$ | $35^{\circ}$ | 250 | 550 | 6,500 |
| W Liupulan | 1,350 | 10,000 | " | 350 | 350 | 250 | 300 | 6,500 |
| Milyangchuen | 2,000 | 18,500 | " | 1,000 | 850 | 850 | 1,000 | 10,000 |
| Peituoching | 1,550 | 10,000 | " | 1,000 | 1,000 | 850 | 550 | 4,500 |
| Lungsanching | 10,000 | 100,000 | " | 10,000 | 10,000 | 10,000 | 4,500 | 8,500 |
| N Changtjachuen | 10,000 | 100,000 | " | 3,500 | 10,000 | 10,000 | 5,500 | 7,500 |
|  |  | ) 6 | I |  |  |  |  |  |



Prince Tangtchung lei and some Tanguts from Tibet at Si-an-ful on the way to Kutai Shan.

|  | 1ja | ammual crop |  | cows | horses | mule | donk | shicep |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Kungmy ngching | 3,000 | 20,000 | tan | 2,000 | 2,000 | 2,000 | 1,000 | 3,500 |
| Yehtja tien | 1,000 | 10,000 | " | 1,000 | 1,000 | 1,000 | 550 | 10,000 |
| 'Tchi ma ing | 1,000 | 10,000 | " | 1,000 | 530 | 300 | $55^{\circ}$ | 8,500 |
| Huangmyngchuen | $55^{\circ}$ | 5,300 | " | $55^{\circ}$ | 300 | 200 | 300 | 3,500 |
| Höbeichuen | 300 | 2,000 | " | 1,000 | 300 | 200 | 200 | 2,000 |
| Luisan miao | 500 | 4,500 | " | 300 | 200 | 100 | 200 | 2,500 |
| Hualingsching | 850 | 1,000 | " | $35^{\circ}$ | 100 | 100 | $35^{\circ}$ | 3,000 |
| Changtienchuen | $45^{\circ}$ | 4,500 | " | 250 | 100 | 100 | 250 | 1,000 |
| 'Tangu chuen | $55^{\circ}$ | 4,500 | " | 300 | 200 | 100 | 200 | 1,000 |

Wheat, barley tchinkho, oats, peas, beans, tchumiza, gaolyan, maize, rice, millet, potatoes, mustard, huma (oil plant), hemp, opium and tobacco are grown. Crop: in the E 6-7, in the S $5-6$, in the $\mathrm{W} 6-7$, in the $\mathrm{N} 8-9$ fold. Taxes 4,500 taels in silver and 1,900 tan of grain. Dungans in the $\mathrm{N} 6-7 \%$, in the $\mathrm{W} 20-30 \%$, in the S and E nonc. In the town $30-40$ tja.

April ${ }_{1}$ 8th. We followed the valley of the Tsingshui ho or Njuthu ho in an ESE direction for about Panlung pu 7 miles. It was about $2 / 3$ of a mile wide and cultivated, like the greater part of the very village. gradually sloping mountains that enclosed it. They are intersected by many side-valleys,

Prince Tangtchung lei from Tibet.

from which very small streams carry water to the tiver. We crossed the latter $51 / 2-6$ miles from the town, the river flowing in two arms, cach a couple of fathoms in width. The water just came up to the horses' pastern joints. Clumps of leaf-trees grew hete and there in the valley. The road had gradually crossed over from the foot of the S mountains to the mountains in the N , where it passed a large village, Peisa, of 500 houses. Just beyond it we left the valley and began to climb the slope in an Edirection. After a gentle ascent of I $1 / 2$ miles we reached the top of a range of hills and went along it for a mile or two with a valley first on the right and then on the left. An casy descent of about $1 / 2$ mile took us into a small valley, where a little stream had its source. At the beginning of the valley we passed Tindtzu pu, a village of 40 houses. At first the valley dips slightly to the ENE. About a mile to a mile and a half from its beginning, we passed a cleft on the right, into which the water of the valley apparently ran, for the stream, which we continued to follow, now flowed in the opposite direction to ours and the ground rose again perceptibly. A mile further on we came to the crest of a small line of hills ruming in a SSW-NNE direction. A small Chinese temple, Hei Yuan su, stood at the top near the road, and in a shed vermicelli soup, tea etc. was sold. E of the crest there was a rather broader valley that ran into another, running $\mathrm{W}-\mathrm{E}$, a mile or two the NE. The road took us towards this valley, along the bottom of which a stream flowed and some clumps of fine leaf-trees were visible. Here we passed the village of Peitja Cheng with 30 houses. The valley, rising very much to the E, led us gradually up to a pass, at the top of which a solitary shady tree was grow-
ing. This was the highest point for the day. (Barometer No.I 581.8.) The view, which was fairly unrestricted, displayed on all sides a panorama of mountains with a multitude of ridges rising one beyond the other interminably. They appeared to be of about the same height as the one we had climbed and had the same smooth, rounded lines. After an easy descent lasting a few minutes we reached the village of Panlung pu at the beginning of a new valley, where we stopped for the night, after riding about 22 miles.

A great difference is noticeable in the vegetation between the valleys near Tsingshui and especially near Tsinchow and the small hills, on which we were. Here the shoots were only just beginning to appear and the trecs still showed no sign of green, whereas down in the valleys cverything was luscious and green. - An untilled grassy belt runs constantly along the crests of the mountains and ridges, but scarcely any grazing cattle are to be seen. The country seems to be very poor in cattle and those we saw were miserable. The cows were often no taller than donkeys. We saw an ox and a donkey harnessed together to a plough and they got on excellently.

Panlung pu consists of 55 houses, of which 5 or 6 are inhabited by Dungans. The livestock amounts to 100 head of cattle, 100 horses, 100 mules, 100 donkeys and $2-300$ sheep. Hemp, wheat, barley, tchinkho, peas, beans, oats, potatoes, millet, tchumiza, mustard, maize and a little opium are grown. Average crop 5-6 fold. - The prevailing winds are easterly. They were said to be high in the 2 nd and 3 rd months. Snow falls from the loth to the 2 nd month and melts usually in 2 or 3 days. Rain between the 2 nd and toth months. There is heavy rain in the 6th and 7 th months.

April sglh. Chiao chow-pu village.

We started eastward from the village along the narrow valley in which it lay. A little stream purled at our feet. The mountains on either side were low, with long slopes. The valley dips slightly to the $E$. Just after passing the small village of Tsao tja pu with 12 houses the direction became NE. The mountains were getting higher and the slopes, which had grown steeper, were covered with birch woods. A mile or two beyond we came to a broader valley opening to the south. It obviously drains off the water supplied by our stream, for a short distance further on we crossed a river, 4 fathoms wide and of no great depth, that flowed southward. The valley grew wider for a time, but narrowed again after we had passed Malupuku on the right, a big gorge in a $\mathrm{N}-\mathrm{S}$ direction. It was apparently connected with the valley on our right.

Our course was now $E$. We rode through the village of Chang-ning, containing 30 houses. The mountains were already so steep that only the lowest parts of the slopes were tilled. All the folds in the ground were wooded. A great many pheasants were visible and still more could be heard cackling and piping. Clouds came up and a light rain began to fall.

After running in an easterly direction for $21 / 2$ miles the road turned SE. The rise in the ground grew very perceptiblc. The trees and thickets that had descended to the bottom of the valley since the last village, grew ever denser and prevented our seeing more than a few yards in front of us. The ground was more and more inclined to be marshy, and we had to make détours to avoid wet places. Big blocks of stone had been
rolled down to the road to make it passable after rain. Between them the damp clay had been trodden into large stair-like holes. In the wood we passed a small colony of three huts put together of rushes and pieces of wood, the inhabitants of which made wooden scoops. A little over 2 miles took us up to a miao built, in the customary way, at the top of the Kuan-shan pass. 'This is the frontier between Kan Su and Shensi. Barometer No. $\mathbf{5 7 0 , 9}$, No. 253 i. 8 .

A heavy mist prevented our seeing anything but the nearest mountains, which was all the more to be regretted, since our journey to-day was through uncommonly beautiful country and would have provided many opportunities for taking photographs. The descent was roughly in the shape of an $S$, the main direction being $E$ along a narrow wooded valley. It was steep and considerably rougher than the ascent. The narrow path, often trodden $1 / 2-1$ m into the claycy ground was full of blocks of stone of all sizes which the horses found it difficult to negotiate. The road made innumerable bends and sharp curves until after about 3 miles we halted in the little village of Chiao chow-pu. Lukanin's horse slipped and fell down the slope, fortunately at a spot where there was another ledge beneath ours. Both Lukanin and the horse escaped with bruises and scratches.

The distance covered did not exceed $15-15 \mathrm{I} / 2 \mathrm{miles}$, but the next village, in which we could obtain provender, was 40 li off. Pheasant shooting and the rough ground had delayed us so much that it was impossible to cover this distance before darkness set in.

The women here wear a peculiar boat- or scoop-shaped hair ornament of black cloth at the back of their heads, sometimes with a black skull-cap that covers the whole head. A tuft of hair, tied with a string, is threaded through this scoop. The richer women decorate the scoop with small ornaments of pressed silver. W of Tsinchow and Tsingshui the string was replaced by a net, covering a tuft of hair or 2 or 3 small plaits, placed in a row in place of the tuft of hair. The rest of their hair is brushed back over their heads. Further W the women had a parting on one side of their heads and brushed a good deal of their hair over their foreheads down to one of their eyebrows.

Chiao chow-pu was a village of 8-9 houses. The inhabitants were Chinese and earned their living by chopping wood, burning charcoal and weaving baskets. Farming is on a small scale and the total livestock of the village amounted to 3 oxen. Maize, tchinkho, barley, wheat, tchoumi, millet, tchumiza and potatoes are grown. Average crop 3-4 fold. Westerly burans are common in the ist-2nd months. Snow falls between the 9 th and the end of the 2nd months, but melts in 2-3 days. There are a good many showers of rain between the $3^{\text {rd }}$ and 9 th months. - Wild boar is said to be plentiful in the mountains, which are covered with thickets.

We moved on at 5.30 this morning. The ground was only slightly wet after some rain last night and yesterday. For $3 \mathrm{I} / 2-4$ miles the gorge went in a NE direction. The ground still dipped very much and occasionally there was a short, steep descent. The road, still very stony, ran along a ledge, a good many feet above the roaring and foaming little river. For long stretches we rode over the slippery, denuded surface of the rock. The gorge was very narrow, the mountains high and steep with many peaks. The greater part was covered
with grass, but in many places the granite was denuded. At first both slopes were covered with bushes and thickets, but these soon came to an end on the left. About $2 / 3$ of a mile further on they became very sparse and a little later they ceased altogether on the right, too. A mile or two below our last camping place, everything was green. Small apricot trees in full bloom added to the beautiful colours. There were single, shady trees growing in the bed of the river. We crossed the river a couple of times on poor, rickety bridges.

After running SE for a short distance our course turned E. Soon afterwards we passed a patch of field, the first we had seen since the Kuan-shan pass. The gorge began to widen slightly. We reached the first houses of the village of Hsia wei kuan after riding about $5 \mathrm{I} / 2$ milcs. Here the valley was much broader and the mountains lower and less steep. There were tilled fields on either side of the river. When we came to the village itself, half in ruins, $11 / 2$ miles further on, the landscape assumed quite a different character: a cultivated valley, 1 mile to $11 / 2$ wide, covered with numerous trees, and bounded by hills of löss, all the gentle slopes of which formed cultivated terraces. Further E the valley grew still wider. We had left the valleys of Southern Kan Su behind us for good.

Unfortunately, the weather, both yesterday and to-day, prevented me from taking any photographs of this, the wildest and most beautiful part of Kan Su that I had seen. There was bright sunshine to-day, but owing to mist we could see nothing but the nearest slopes of the mountains.

The ground now dipped imperceptibly. The road was still very stony in some places, while in others it had grown hard after the rain. It could, however, easily be adapted for wheeled traffic, though in its present state this is inconceivable between the Wei ho, E of Tsingshui, and the village of Hsia wei kuan. To make the Kuan-shan pass possible for wheeled traffic, a good deal of blasting and other work would be required; on the other parts of the road digging would be sufficient.

About $3 \mathrm{I} / 2$ miles E of H sia wei kuan we crossed the river H si ho for the last time. Herc it was 40 feet wide and the water came a little above the horses' knees. The mountains on the right, that had practically disappeared in the distance, drew nearer again and the river flowed on, enclosed between two mountains. About $2 / 3$ of a mile beyond it ran into the river Chen ho, coming from the NW. The latter, which flowed in two arms, 35 and 50 feet wide, was crossed by a bad bridge not far from a large village, Ts'ao chuan, of 80 houses. The road followed the mountains on the left bank of the river in an $\mathrm{E}, \mathrm{S}$ and finally in a decidedly SE direction. It had a preference for keeping close to the mountains on the right bank. The mountains on the opposite bank retreated more and more and soon appeared as only a faint outline in the distance. Those we had been following also ran at a distance of about $2 / 3$ of a mile from the road towards the end of the day's journey. The bed of the river was marked by a steep slope, 15 - 20 feet high, on the opposite bank.

The valley was densely populated - there were many villages on the road and still more were grouped on either side of it. On the left whole villages of caves had been made in the soft side of the mountain, which sloped steeply at the bottom. They were far more comfortable than those I had seen in the neighbourhood of Uch Turfan. Here they frequently had doors and two windows with many small panes of paper and a hole above
the door for the smoke to escape by. Inside they were entirely in the Chinese style. Shortly before reaching Lungchow we passed an impanj with an in of recruited mobile troops in the village of Tiucha chang. We caught sight of a couple of men in the doorway, clad in khaki summer uniforms. Scarcely $2 / 3$ of a mile beyond, the suburb of Hsikuan began, where we stopped in a dirty sarai. The distance covered was about 20 miles.

The suburb of Hsikuan is fairly large. The town itself, which is surrounded by a neglected wall of clay with a moat and four small buttresses on each side, is half a mile square. There is a crenellated parapet of baked bricks, as usual, and projections before the gates. There are some small clay houses on the embankment and some of the buttresses are crowned with wooden pagodas, in the lowest part of which, built of clay, you see embrasures for guns. The space inside the wall is sparsely populated. There are no beautiful temples or other buildings. I was told that the town was not captured during the Dungan revolt, though the neighbourhood was laid waste, an old Buddhist tower, among other things, having been destroyed. The population of the town itself is said to amount to 7,000 and of the town and suburbs together to scarcely 3,000 t ja, including a small number of Dungans. About $\mathrm{I}, 400$ of the inhabitants are engaged in agriculture. - Trade is mostly local and, judging by the outward appearance of the shops, not very lively. The articles exported from the district are wheat, maize, opium, hemp, herbs for medicine, rope sandals, wood and coal. There are coal mines in the mountains in the NW - in Nankujou and Sinyoushan, 90 and wo li from the town. There is said to be a good deal of coal here in the mountains. There are several shafts not far from the road between Lungchow and Cheng-ngang, in which so far only the inferior veins are being worked. The local people cannot reach the better ones on account of water forcing its way in. All the exports go over Feng-siang-fu. There is a Chow resident in Lungchow, who also governs Ma-lu-chuang in the W with a mandarin, who, however, does not levy taxes. The district is subordinated to Feng-siang-fu. It is divided into the following Shang-ja districts:


|  | 1 ja | annual crop |  | cattle horses |  | mules donkeys sheep |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Chihsali | 4,500 |  |  |  |  |  |  |  |
| W Kuohsiali | 1,000 | $30-40$ t |  | 3-4 | 1 | 1 | 2-3 | 10 |
| Mafangli | 2,000 | 20 | ) | 3-4 | 1/3 | 1/3 | 2-3 | - |
| Pingshuili | 1,000 | 8-9 | " | 2-3 | 1/10 | $1 / 10$ | 1 | - |
| Tingtuli | 4,500 |  |  |  |  |  |  |  |
| Fuyangli | 3,500 |  |  |  |  |  |  |  |
| Kukuanli | 5,500 |  |  |  |  |  |  |  |
| Shyngtseili | 2,500 |  |  |  |  |  |  |  |
| Sienili | 3,000 |  |  |  |  |  |  |  |
| N Wingchuenli | 10,000 | 40-50 | " | 10 | 4-5 | 1-2 | 4-5 | 30-40 |
| Hueipingli | 10,000 | 20-30 | " | 4-5 | 1 | 1 | 4-5 | 4 |
| Hsiliangli | 5,500 | $10-20$ | " | 2-3 | 1/2 | 1/2 | 4-5 | 10 |
| Peineili | 2,500 |  |  |  |  |  |  |  |
| Hsingpingli | 8,500 |  |  |  |  |  |  |  |

Wheat, peas, beans, mustard, millet, tchumiza, opium, tchoumi, barley, tchinkho, hemp, oats, maize, gaolyan, potatoes and some rice are grown. Average crop: in the E 8-9, in the $\mathrm{S}_{10}$, in the $\mathrm{W}_{7-8}$ and in the $\mathrm{N}_{12-13}$ fold. - Annual tax 3,900 tan and 30,700 taels in silver. - There is a protestant missionary station in the town that has for 13 years been in the charge of an Americanised Swede Nilsson and his wife.

April 22nd Cheng-ngang.

There is not much to say about yesterday's journey. We left by the $S$ gate of the town and rode at first in a $S$ direction, crossing the river, which was now called Lunchow ho. It flowed SE in 3 arms, the largest of which, 85 feet wide, is crossed by a bridge. Soon after we reached a slope of the bank, $20-30$ feet high, with many caves dug in it. The mountains were visible at a distance. We rode in a SSE direction over to the mountains on the opposite bank. The river flowed in two main arms, 40 and 50 feet in width, over which poor bridges had been thrown. The current was swift, but at this time of day the water scarcely came up to the belly of a small horse. Immediately afterwards we came to the foot of a spur of the mountains which we followed for the rest of the day, our main course being SSE, either crossing a projecting spur, against which the river pressed, or creeping close to its foot or else moving off in order to take the shortest course across a wide valley. The ground in general was level and good, but the road left a good deal to be desired. The soft earth had grown hard and was full of ruts made during the rainy weather, and there was scarcely a level spot big enough for a horse's hoof. Whenever we followed a spur of the mountains, the road led along a ledge, often so narrow that wheeled vehicles could not pass. In rainy weather the road must be extremely trying throughout its whole length, and not devoid of danger in some parts. It would not be difficult to make the ledges passable for wheeled traffic. The mountains on the right bank run mostly at a considerable distance from the river. The latter flows for the greater part so far off that it is not visible from the low-lying parts of the road. The neighbourhood
is densely populated and prosperous. The villages succeed each other at short intervals and many others can be seen on either side of the road. The slopes of the mountains are bordered with whole colonies of these peculiar caves.

The lush verdure of the plain is interrupted here and there by fiery yellow fields of mustard and many fruit-trees in full bloom, white and pink, climb high up the gentle slopes. The latter are tilled everywhere and are reminiscent, with their terraces, of the mountains in the vicinity of Lanchow, which are probably also green and beautiful at this season of the year.

The curious, scoop-like head-dress of the women is of a slightly different shape with more upright points. There are plenty of more or less appetising refreshments and food on small stands, tables or trays in the villages and in the shade of big trees. Everything looks cleaner and more attractive than in Kan Su, but perhaps this is due to the sun, the verdure and the heat. The people are also brighter and more obliging.

We reached the $W$ suburb of Cheng-ngang after riding about 26 miles and stopped in a sarai quite near the newly built Protestant mission station. It was in charge of two ladies, Miss Nordin, an American Swede, and Miss Jönsson, a Norwegian. They were so kind as to invite me to stay at their station, but I declined. I was very pleased, however, to have a couple of excellent meals with them, cooked in the Swedish, Norwegian, English and American style. This afforded me an opportunity of meeting Mr and Mrs Nilsson, the missionaries, who were on a visit here from Lungchow. The little station with its rocking chairs, white muslin curtains and simple dining-room benches, built and managed by two capable Northern women, made an excellent impression on me. One of my horses fell ill yesterday and forced me to take a day's rest.

There is a Hsien kuan resident in the town, subordinated to Feng-siang-fu. Trade is local and of no importance. The exports, which principally go eastward via Feng-siang-fu, consist of brandy, which is said to be popular (about 20,000 taels a year), wheat, maize, opium, straw mats and basketwork of reeds. The district is divided into the following Shang-ja districts:



A Tangut from Tibet on the way
to Sinai Shan.

Wheat, peas, mustard, millet, thumiza, barley, hemp, tchoumi, maize, opium, gaolyan, potatoes and rice are grown. Fruit also everywhere in Shensi. -- Tax 2,900 tan of grain and 4,000 tacks (in the books in the yamen 20,000 ?). - The garrison of the town consists of one pazung with a detachment of the Feng-siang-fu garrison.

April 23rd. My brown ambler having recovered in the course of the day, it was unnecessary to Feng-siang-fu. make a longer stay and this morning we turned our backs on the town and its hospitable little mission station. We soon passed through the suburb and proceeded along the foot of the S town wall. The river Chen, or rather, now the Ciheng yang ho wound along on the right at some distance. Our course was SE. The landscape was the same as yesterday. The wheat in the fields looked as if it had shot up considerably during yesterday. We met large caravans laden with cotton on their way to the west. We overtook about 50 Tibetan mares that were being taken to Hing-an from the neighbourhood of Taochow, where we saw them last. They were well-shaped little creatures, but had grown much thinner during the journey. The ground along the road was, if anything, even more uneven than yesterday. After $1_{4}$ li we crossed the Tienku ho, a tributary of the Chen ho from the N. It was 15 feet wide, very shallow and flowed in a bed several dozen feet broad. 6 li further on we came to Huanglingpu, a village of 25 houses. Immediately beyond it we crossed another small river. The mountains on both sides of the river had now drawn much nearer to it.


The road led over a spur that came up to the bed of the rise wh bohl banks. The aremt was long, but not steep. The road was inconceriably uncen and whon we narrow In its present condition it would be impassable on wheds, but there should be we ereat difficulty in making it passable.

Up on the hills lies the village of Painpupu with $3^{\circ}$ houses. 'This is considered the halt distance to Feng-siang-fu and a short rest and refreshments are thought to be indicated at this juncture. However, I was not to be tempted by the delicacies displased, but continued my journey. After kecping at approximately the same level for some considerable time we began the descent, which was much shorter. On the way we passed the village of Youtien-tzu with 40 houses buili into the soft side of the mountain $t^{0}$ li from Kienyang). The direction had become ESE. We were on a terrace-like eminence with a slight dip to the S . We could not see the river any longer, but some mound-shaped high hills on the right, which we soon left behind. The plateau, on which the road had been made, was level like the bottom of the valley of the Wei ho, the fields, villages and trees of which were spread out as far as we could see. io li from the last village we rode through Iiuliupu, a prosperous village of $80-100$ houses with many shops. The Chinese estimate the distance to-day at 70 li .

In the distance we could see the grey wall of the Feng-siang-fu fortress, as if drawn with a ruler. Soon after, we entered its W gate, outside which there was a small group of houses.

The wall is unusually long and the gate is protected by an outer wall, but, contrary to the custom in China, both gates are walled in without a break. I counted no less than 18 buttresses in one side of the wall. The area of the town is $2-3$ miles, but some parts are very sparsely populated. The street that led us from one gate to the other consists almost entirely of shops, many quite well stocked. In a couple of places the peculiar smell betrayed the fact that we were passing distilleries - one of the local specialities. A number of carpenter's shops turn out mostly rather rough little tables and stools. The street was broad and a considerable part of it was paved with large stone slabs. If it were not for the dust, it would almost be a pleasure to take a walk here. A couple of old "peilu", one of them of skilfully carved blocks of stone, are the only memorials or buildings to attract attention.

The town must be very old, but is said to have lain further east in former times. Small ruins are still visible close to a picturesque old bridge, decorated with bas reliefs, E of the town. The present town, like Lungchow, is said to have withstood a prolonged siege with honour during the Dungan revolt. At Lungchow, especially, where the siege lasted for over a year, a stubborn resistance is said to have been put up, women and children pouring boiling water over the assailants etc. The suburbs and surroundings of Feng-siang-fu were destroyed completely. - A Fu, a Hsien and a Tsoudian, commanding an in of tchyping, are resident in the town. The first of these three gentlemen is reputed to be strict, but just. I was told that he sometimes made a round of the bazaar on foot, talking with the people and trying to convince them of the advantages of education in schools, and the necessity of abolishing opium smoking and of preventing women from mutilating their feet.

2 or 3 schools have been opened in the town. One is a mmiddle» school, in which there are about 300 pupils and 9 masters, all Chinese, this year. The majority of the masters are poorly educated. The English master, for instance, still takes lessons from the English missionary. A girls' school is said to have practically no pupils. - As regards the reform of opium smoking, it is at the same stage as in Kan Su. Some farmers, however, scared by various proclamations, are supposed voluntarily to have reduced their opium growing. I called on the English missionary, Mr Stevens, but was received very stiffly and saw nothing beyond his official reception room.

Fen-siang-fu is subordinated to the Taotai at Si-an-fu and controls Feng siang hsien, Tchisan hsien, Paotsi hsien, Fufeng hsien, Mi hsien, Lingyu hsien, Kien yang hsien and Lungchow. - It is divided into li; the town itself is called Tsei cheng li.

|  | tja | annual crop | cattle | horses | mules | don- |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| E Cheng hsien li ........ $10-14,000$ keys |  |  |  |  |  |  |
| Sanyang li | 5,500 | 55 tan | 1-2 | 1 | 1 | 1-2 |
| Shyngping li | 7,500 | 100 " | 3-4 | I -2 | 1-2 | 2-3 |
| Weihsiang li | 4,500 | 25 " | 1 | I/4 | I/4 | 1 |
| Hungshui li | 5,500 |  |  |  |  |  |
| Shyngtu li | 5,500 |  |  |  |  |  |


|  | tja | annual crop cattle horses mules |  |  |  | don- <br> keys |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Shangmyng li | 6,500 |  |  |  |  |  |
| Pukang li | 4,500 |  |  |  |  |  |
| Kyngshyng li | 8,500 |  |  |  |  |  |
| S Kangdja li | 7,500 | $100 \tan$ | 3 | 1 -2 |  | 2-3 |
| Hutu li | 5,500 | 55 * | 2 | 1 | 1 | 1 |
| Hsienkui li | 3,500 | 25 * | 1 | 1/2 | 1/2 | 1 |
| Tseiwang li | 6,500 |  |  |  |  |  |
| Shyluo li | 4,500 |  |  |  |  |  |
|  |  | N slightly less than in the S |  |  |  |  |
| Hungyen li | 10,000 |  |  |  |  |  |
| Hsingyen li | 4,600 |  |  |  |  |  |
| Pingshan li | 5,500 |  |  |  |  |  |
| WYtsiuen li | 3,500 |  |  |  |  |  |
| 'Takei li | 7,500 |  |  |  |  |  |
| Hsiping li | 3,500 |  |  |  |  |  |
| U li | 1,000 |  |  |  |  |  |
| Luchung li | 5,500 |  |  |  |  |  |
| Taiy li | 7,500 |  |  |  |  |  |
| Chuen chang i | 3,500 |  |  |  |  |  |
| Changshu li | 3,600 |  |  |  |  |  |
| N Fyngpei li | 1,000 |  |  |  |  |  |
| Tsuoyang li | 2,000 |  |  |  |  |  |
| Yyngtai li | 3,500 |  |  |  |  |  |
| Cheng yen li | 4,500 |  |  |  |  |  |
| Thaoyen li | 1,000 |  |  |  |  |  |
| Hungchy li | 8,500 |  |  |  |  |  |
| Suihsien li | 2,000 |  |  |  |  |  |
| Tuyang li | 1,000 |  |  |  |  |  |

Wheat, gaolyan, barley, mustard, peas, millet, tchumiza, maize, tobacco, hemp, and rice are grown. Average crop: in the E $8-9$, in the $\mathrm{W}_{7}-8$, in the S 10 and in the N 7 - 8 fold. - T'ax 33,000 tan of grain and 52,000 taels. Exports: brandy to E and NW, tobacco to Kan Su, pipe tobacco to Hsi-An, paper to Kienyang, Lungchow, Tsinchow, sticks of incense to Northern Kan Su, furniture and wooden cases to Tsinchow, medicinal herbs.

After saying goodbye to Wang, who was to go direct to Hing-an-fu with my baggage April 2 in the arbah, we started this morning at dawn. The sky was leaden and gave little hope Famynd of the rain ceasing. To the E of the town the road still consisted of large stone slabs. Me-jan A li or two from the town we crossed a pretty, o.d stone bridge, leading over a stream or village. small river that flowed between quays built carefully of smooth stone slabs. On both sides
there were remains of walls and other ruins. The stone pavement of the road came to an end a couple of li further on. Here lay the village of Tsuifan tin of 150 houses on a small river of the same name. The road ran in the same ESE direction as yesterday. The ground is supposed to dip, but it is not perceptible. Hungshui, a village of 180 houses, lay 30 li from the town, a river of the same name flowing through it. 12 li beyond we came to Tu chr mu with 4 houses.

We reached the town of Chi san hsien after covering 50 li and rode through the little place without stopping. It looked far from attractive in the grey, dirty weather. The name of the town occurs in Chinese history about 3,00o years ago under the Chow dynasty. The town is said to contain a tree that dates back to the time of Abraham. A Hsien is resident there and there is a Protestant mission station in charge of the missionary at Feng-siang-fu.

5 li from the town we passed Uni mao with 15 houses and 5 li further on a little river, flowing southward in a deep cleft, Yengwa ho and Mu. A village of the same name of $30-40$ houses lay on either side of the valley. The village of Lungiku of 12-15 houses lies 20 li from the town. A short distance from it the road to Tsian Chow branches off from the arbah highway from Feng-siang-fu to Hing-an-fu. We took the former in an ENE direction. The mountains we had recently left rose up on the left. The more distant ridges were covered with snow. The rain in the night had probably produced snow in the mountains. On the right and straight in front of us there was an apparently level plain. It was cultivated everywhere and large groups of leaf-trees indicated the positions of the thickly scattered big villages. 5 li from the spot, where the road divided, we passed the village of Pei yang i with 700 houses, 10 li beyond the village of Sungtsung with 20 and in another so li Ti ha ching with 600.

The rain had stopped, but it was still dull and piercingly cold. The local people along this part of the road were extraordinarily inquisitive and kept on running long distances to get a close view of us. At Ti ha ching, where I had intended to spend the night, we were literally besieged by about 200 Chinese. This made me lose patience and decide to ride the remaining 15 li to the village of Famyng sy or Me-jan hsien, as it is also called. We met many caravans of mules laden with white cotton cloth. The cattle on this side of Lungchow were much larger than in Southern Kan Sue. From Feng-siang-fu they had become fine; the oxen were large, red-haired and in good condition and the mules were also considerably larger. We saw numerous stones with inscriptions during the journey and old peilu built of stone. Some were rather beautiful.

After travelling ${ }_{11} 5 \mathrm{li}$ in all we reached Famyng sy, a village of 200 houses. There is a temple with a high tower of the T'ang dynasty in the village. Wheat, oats, peas and mustard are grown here Average crop $7-8$ fold. All tillage is dependent on rainwater. We were still on the same plateau as Feng-siang-fu. Snow falls from the it th to the beginming of the end month, but melts in a day or two. There is a good deal of rain between the and and roth months. Strong east winds in spring. There have been no buran in recent years.

To the E of the village we crossed a deep ravine going NNE-SSW. The road, too, ran in a considerable ravine-like hollow which prevented our seeing anything on either side. After 20 li we rode across a small stream, Yeh ho, at the bottom of a narrow valley with steep banks. The mountains that were clearly visible at a distance on the left disappeared for some time. Our course was still ENE. Soon mountains appeared again in the N , but lower and closer to the road. The latter ran for miles in a hollow only as wide as an arbah. It only grew wider in a few places, so that 2 arbahs could just pass each other. The vehicles we saw were driven with loud shouts in order that traffic in the opposite direction should stop and wait at one of these sidings\%. Whenever we came up to the surface of the ground, as we did from time to time, the landscape around us was exactly like yesterday's. 30 li from Famyng sy we crossed the Myngdja ho, 25 yards wide, the water coming a little above the horses' knees and flowing NNE--SSW. It is also called Yu feng ho and is probably the river that is called Hangu ho on the map of the General Staff, a name that is unknown here. The village of Mutjatien with 20 houses lies on the opposite bank. A ridge running further south was passed along a sunken road.

We met a couple of caravans with cotton cloth and an endless number of old Chinese women, most of them terrifyingly ugly. There were arbahs full of this precious burden, 7 or 8 old women squeezed on to a cart. Others tripped on their tiny feet along the sticky and uneven road, leaning on long, narrow sticks. It must require a great deal of practice to walk long distances on these small goat's-feet. Shensi is said to be famous for the unusually small and neat feet of its women, in other words they go through worse torture there than in most of the other provinces.

40 li from Famyng sy we passed the village of Singlien-tzu with 50 houses and at intervals of 10 li Lingping with 120 houses, enclosed by a town-like wall, and Sanshih siung with 50 or 60 houses. After riding 80 li we reached the town of Tsiang chow. Like most of the towns in this neighbourhood it covers a large area and is sparsely populated. It has 6 gates and is supposed to be built in the shape of a turtle. 5 li N of the town there are some very ancient graves with blocks of stones bearing inscriptions or carved in the form of various animals. They are supposed to contain the ashes of Kao tsong, his Empress Wu Heo and of princes, eunuchs, concubines etc. It was late at night that I was told of them, so that I was unable to see them for myself. The town was founded under the name of Ch'ihsien during the T'ang dynasty. It was a fortress built to resist a certain Chutszi, who was subsequently vanquished by the supporters of the Emperor T'ang. The town was given its present name under the Emperor Tei Ti of the Sung dynasty (in 1,138 ). There are several temples in the town said to have been built during the T'ang dynasty.

The local Protestant mission station is in the charge of a Swedish American, Mr Hagkvist, and his wife, a genial man who had lived for a long time in Si -an-fu and seemed to know the province uncommonly well. The population of the district is supposed to be $20-30,000$. - Wheat, mustard and two kinds of peas (winter sowing) and in the spring millet, tchumiza, beans, tchingmi (?), gaolyan, maize and lucerne are grown. All the crops depend on rainwater. Average crop $6-7$ fold. Snow falls between the inth and 2nd
months, but melts in a couple of days. Plenty of rain between the 3 rd and roth months. N winds are common. No burans occur.

April 26th. We did not cover more than 45 li to-day. I had intended doing 80-90, but, while Li-tsui-an. taking a rest at Li-tsui-an, I called on some Swedish Americans, Mr and Mrs Beckman and the brothers Palmberg, and was persuaded to stay the night. This change will not put off my arrival at $\mathrm{Si}-\mathrm{an}$-fu, but forced me to do 120 li on the following day instead of $75-85$.

The road took us through densely populated and cultivated country with a slight dip to the SE. Our course was almost due E. There were no villages next to the road, but a good many at a distance of about one li on either side. Those nearest the road were: 20 li Yu-yuan-tung with 4 houses, 25 li Yuan-tsung-pu 8 houses, 30 li Ting cheng ${ }_{10}$ houses, 40 li Tjatsung 40 houses. A little further on Hsing chiaotsun with 250 houses.

Li-tsui-an was the same kind of town as those we had passed through recently. The very dilapidated crenellated wall of pounded clay enclosed a sparsely populated space of scarcely $2 / 3$ of a mile square. All these towns are regular in shape and dominate the surrounding plain. The crenellated parapet was of baked bricks, the walls of clay and very decayed. There is no outer ditch in most cases. The buttresses are small. Those in front of the gates have an outer gate walled in, in a line with the street. There are no towers, only wooden pagodas over the gates. There are no garrisons or else they consist of a dozen men under the command of an officer. - There was not much to see in the town. A couple of temples that I visited, the larger one dedicated to Confucius, were scarcely worth looking at. - Trade is local and unimportant. The district is very fertile and partly irrigated. The population is said to be about 100,000 . - The greatest pleasure I enjoyed in this place was the sight of two delightful, rosy-cheeked Nordic girls, who spoke Swedish, the small daughters of Mr and Mrs Beckman. Neither America, nor China had been able to alter their genuine Swedish type by a hair's-breadth.

April 28 ih. Si-an-fu.

At 4 a.m. we continued our all too monotonous journey. The ground was cultivated and densely populated. Large clumps of trees indicate the positions of villages. After 30 li we passed through Tien chang, a village of $40-50$ houses. io li beyond lay Sie tsi tsun with 100 houses and at intervals of 5 and 10 li we passed Shang tiao with $5-6$ and Sang do with 20 houses. Two enormous graves rose up in the SW and SSW at a distance of a few miles, surrounded by a number of smaller ones. After another 5 li we rode through the village of Shang chu with $70-80$ houses. Quite close to the road, on the left, there were a great many tombs, 4 of colossal size, towering above the rather flat ground. They looked as if they were square at the base, the sides tapering towards a flattened top. Two of these colossi were quite close to the road, the other two at a great distance. We now came to a declivity, a few dozen feet deep, by which the plateau, on which we had travelled for several days, dipped towards the river. We could see the broad river shining in front of us at a distance of a few miles. For a considerable time there were small graves on either side of the road, down in the valley.

A ride of 70 li brought us to San Yuan hsien, a town of an unusual shape. Its wall, about a mile and a half in length, wriggled like a snake along the bank of the river, following its curves. At its broadest it was scarcely $1 / 3$ of a mile in width, but towards the points the walls were only a few dozen yards from each other. Here there was plenty of life and movement, inns, booths with bread, food and refreshments without end. Craftsmen were hard at work. Carpenters and coffinmakers planed and knocked, smiths hammered, ropemakers turned their handles, to which a dozen ropes were fastened. We even saw a small four-bladed anchor in a booth, as though we were in a seaside town. Just outside the town gate a few dozen arbahs were waiting their turn on one of the six ferries that held up the traffic. The squabbling and yelling went on incessantly. Whips cracked and the poor horses were driven into the crowd at the risk of getting their legs broken by the heavy wheels of the arbahs. A mandarin of inferior rank strode through the crowd, preceded by a few soldiers in picturesque garb, the people only waiting for him to pass before they went for each other again as though fighting for their lives. Food was being sold on a little knoll, pork anointed with oil, whiselw (a mixture of fruit-juice and potato flour) cut into slices, vermicelli, rice, bread, brandy and other delicacies.

The river was about 235 yards wide here and $21 / 2$ metres deep. The ferries carried $6-8$ arbahs with their horses and were worked by six men with large poles, who sang at their work. The banks were sandy and the bottom firm. The current was very slow and the water brown. After very heavy rain the river was said to get so swollen that traffic could not cross it for a couple of days at a time. The village of Holitie with 200 houses lay on the other bank. Just beyond we crossed a tributary, about 120 yards wide, coming from the south, by a good bridge. The ground was flat, but there were plenty of trees in contrast to the N bank. Trees were planted along the greater part of the road. After 100 and 108 li we passed the villages of San-chow with 100 houses and Tsouen with 7-8.

Shortly before the town there were large barracks enclosed by walls. High gymnastic apparatus protruded above the wall and we caught sight of about a dozen slender Chinesc at practice. Two entrance doors were guarded by a couple of soldiers with rifles and fixed bayonets. Recruits were marching in the courtyard, lifting their knees absurdly high. Signals blown in the European style could be heard from behind a mound. A few frail soldiers with red shoulder-straps hanging down their sleeves stood and gaped at the myang kuiza" riding past. A couple of officers, leaning on their swords, were discussing some problem in the dust of the road. I had the feeling that I had come to one of the hothouses in which the newly awakened China was being nurtured.

A large suburb allows only the high wall of Si -an-fu to be visible at a distance. It did not take long to traverse it and we found ourselves in front of the three heavy entrance gates and long vaults of the town. The two outer ones are crowned with big buildings with innumerable gun embrasures. My men had prepared a large, though not particularly comfortable room for me. I found some welcome letters and a bundle of newspapers, the last before Peiping, awaiting me. There was also an invitation to dinner from Mr E. A. Schaumlöffel, the retiring manager of the post office, recently organised after the European pattern. I spent a pleasant evening in his house, or rather in the house of his successor,

Mr Manners, with these two gentlemen and three Franciscan fathers, Gabriel, Hugues and another.

May ioth. The work of reform has been proceeding here about as long as at Lanchow, but the Si-an-fu. results are more perceptible in some spheres. It seems as if Si -an-fu, thanks to its ancient and close connection with the coast, were riper for some reforms, especially in regard to schools, and had better opportunities of securing suitable people owing to these connections. In other spheres, however, it seemed that less energetic work was being done than at Lanchow. This is particularly the case as regards utilising the local resources of the province. But on the whole there is a good deal of resemblance between the two provinces and in neither can the results achieved be regarded as anything but a first step in the scheme of reforms drawn up in Peiping for all the provinces. In Kan Su the Belgians are playing an important part in this work of reconstruction, here the same is being done more or less by Japanese.

Communications, or rather railway construction, are the first item in the programme and here, at all events, the most urgent problem. It has, however, been reduced to a very small matter. The authorities are only engaged in constructing the railway as far as Tung Kwang at the bend of the Yellow River. The line has been surveyed by the Japanese, and is to go over Sanyuan. The distance is said to be about 300 li and the cost is estimated at 10,000 taels per li or 3 million tacls for the whole distance. To raise this amount, all land in this area was subjected last year to a special tax per mou. This burden, a heavy one according to local ideas and augmented by the greed of the mandarins, provoked protests and disturbances. Orders were given in Peiping to abolish the new tax, and soon afterwards the Fantai was removed owing to this and other abuses. It is reported, however, that both he and many of his charming colleagues had managed to secure a decent income out of the transaction.

Merchants and mandarins are now being urged to became shareholders. Members of the local mintelligentsia", students and teachers have been instructed to educate public opinion by means of lectures and personal discussions. A preliminary subscription list, however, yielded an unsatisfactory result. The merchants are reluctant and do not hide their very natural distrust of a business concern sponsored by the authorities. Under severe pressure from the higher mandarins and after the minimum subscription had been fixed at 2 taels and a dividend had been promised within four years, another preliminary subscription list was started a short time ago. This time 600,000 taels were subscribed. In view of such a result it seems probable that the remaining funds will be obtained either by further subscriptions or by the provincial treasury shouldering part of the expenditure, or in some other way, and that the scheme will be carried out.

It is stated here that Tung Kwang is to be connected on the other side by a railway with Tai-yuan. This line is to be constructed by a French company (presumably the same that built the railway to Tai-yuan). This question, however, is only discussed very superficially here. At Lanchow I was told that the Chen-chow - Honan-fu line was to be prolonged over Tung Kwang to Si-an-fu, but here the country is considered to present too great obstacles and
the Tai-yuan - Tung Kwang line is said to have been decided on. A map of the proposed Chinese railway lines that is being distributed to officials in the empire through the post office, seems to confirm this. The latter line is marked on it, whereas there is no westward continuation of the Chen-chow - Honan-fu line. - Among some of the other surprises on this map there is a line from Lanchow to the NW, to Urumchi, without any previous connection between Lanchow and Si -an-fu or any other point on the eastern railways. Besides, this line is drawn far to the south of Lianchow, across a considerable part of the Nanshan mountains.

With regard to other means of communication nothing whatever has been done. It is reported that a road has been built by troops from Feng-siang-fu via Lintay to the Si -an-fu - Lanchow highway for transporting salt, for salt is always to go by this route, which is more level. In Feng-siang-fu, however, I heard that the rains had washed away part of this road. The people of Lungchow planned an arbah road from Feng-siang-fu to Lungchow and a rich Chinese at Lanchow even undertook to build a big bridge at his own expense, but the scheme could not be carried out because it would have reduced the importance of Feng-siang-fu, as caravan loads are transferred there to arbahs. A good example of the way in which the mandarins protect their own pockets.

Less has been done here than in Kan Su to improve the natural resources of the country. The province is supposed to possess good supplies of metals, especially in the mountains in the $S$, where there is said to be both iron and copper. The Chinese brag about their copper, though it does not appear to be refined anywhere. This is, no doubt, due to the risk attaching to any industrial undertaking run by a private individual. All is well so long as the business experiences trouble, but once it has been worked up and begins to yield a profit, the mandarins are soon on the scene and lay hands on it on some pretext or other. - There is said to be plenty of coal both in the $S$ and $N$ mountains and gold in the $S$. This is indicated by the fact that thousands of men make their living by washing gold in the river Han. - Oil is obtained by the authorities in the mountains near Yenchang, about 8 days' journey northward from Si -an-fu. There are 200 oil wells. Cases containing 2 tins are sold in Si -an-fu at 3 dollars and 80 cents or about the same price as the American oil, but the refining is said to be not sufficiently careful, at any rate at present. The kerosene produces a good deal of smoke. Complaints are also made that it burns faster than the American oil, which makes it dearer. The concern is managed by three Japanese and the whole installation, made a year ago, is said to have cost 500,000 dollars. - For the present this is the only place where the mineral resources of the country are being utilised. - An attempt to establish a silver mine in the neighbourhood of Yauchow is said to have proved unsatisfactory.

In regard to troops Shensi is considerably in advance of Kan Su not only in numbers, but in regard to the staff of officers and training. The main contingent, indeed, consists of the same miserable militia-like institution of „tchyping». Garrisons are numerous. If they were complete in numbers, the forces of this part of the province alone would amount to about 50,000 men. In the towns, where senior officers are resident, about 100 men can be reckoned to an in, but in other places not more than about 50 and often even
less. They are armed with rifles with wicks that are also used in target shooting. It is only among the senior officers, starting with Djentais, that you find supplies of breachloaders, many of them old Remingtons and Masers of 1 cartridge. With the exception of $\mathrm{Si}-\mathrm{an}-\mathrm{fu}$ and Ku yen and possibly Hanchung, in view of its importance and remote situation, these supplies are unimportant. As in Kan Cu, manoeuvres are only held during the and and 8th Chinese months, when reviews usually take place, too, in the larger towns. Target shooting also is only practised at that time, once or twice in each month. There are no instructors. The men and officers have in turn to occupy posts, guard the town gates and serve in the yamens of the superior officers. As a rule they are relieved every six days (?). - In towns in which the garrison is composed of mobile troops, efforts are made, however, to introduce the marching pace of the modern Chinese troops and their evolutions. This drill, beneath criticism in its execution, has - it must be admitted a certain reason. The officers are the old Chinese officers and to a great extent superannuated. It is worth noting, however, that a feeble attempt is being made to rejuvenate the rank and file by dismissing old men and recruiting men who are scarcely full-grown. At Si-an-fu I watched 3 in of tchyping, about 250 men, at target practice. They used rifles with cocks. The range was 200 yards. Out of 95 shots there were 33 hits. The target was the height of a man and 3 feet broad.

As regards other troops there is 1 in of whsuipei fandziun» in each of the 4 Djentai residences of the district (including Southern Kan Sup), 3 in of nhsypei» and I in of ntchang pei at Mu yen transferred from Lanchow, I in of »fupiao» (from Si-an-fu) at Hanchung and 8 „fandziun" (formed of former »lendziun») quartered in different towns in order to maintain the posts along the roads. They are about equal in numbers and may be estimated at slightly over 300 men each (tchangpei and fupiao about 450 men each) with about a dozen officers. The 7 in of "hsypei fandziun" and "hsypei» are armed with matchlocks and some rifles with cocks, the 8 "fandziun» in with rifles with cocks and a few Causers, the "tchangpei" and probably the "fupiao" with rifles with cocks and repeating rifles. These troops have instructors of the rank of junior officers or N.C.O's. They are trained either in the courses for officers at the "Tulenchu» in the provincial capitals or among troops trained according to the so-called German system, a few among the »ludziun» at Si -an-fu. The latter are the best and are said to know their job. Gymnastics have been introduced and the marching and exercises are praiseworthy. The activities of other instructors are restricted to marching and exercising and they often seem inclined to neglect even these. - The officers consist, at any rate for the greater part, of men of the good old schools, who probably watch the introduction of a new system with distaste. It can also be said that as a general rule the drill that ought to take place twice a day, is often omitted. Target practice is neglected. There are no fixed days for it. In many 川ins» I was told that no shooting had been done for the last year. It must be estimated that target practice is only done between the harvest and threshing in the autumn and the field work in the spring, ie., in the course of 2 or at most 3 months. The range is always the same. No tactical exercises are carried out and those exercises that are indulged in are interfered with by the fact that a great part of the men are scattered among different posts. The men are often changed.


- Opium smoking is forbidden and the men are young and in good health. Among the ludziun troops there are only young men, apparently often scarcely grown up or at any rate physically poorly developed. They are of medium height or slightly above it. There are no opium smokers, nor are men with physical defects accepted. - The 6 in quartered at Si -an-fu were formed 3 (?) years ago of 12 in of former troops. The officers are to a large extent from the Pei yan and Nan yan armies.

The armament consists of Mannlicher rifles (Mauser?) of 5 cartridges of Chinese manufacture with short, dagger-shaped bayonets. The officers carry slender, narrow swords in metal scabbards. No cartridge belts or any other equipment are worn on regimental manoeuvres even for guard duty. - Their dress consists of a close-fitting short black coat, like a shirt, fastened in front with black laces. It is worn inside their trousers. On their shoulders they wear red (in the artillery yellow?) tabs with the name of the regiment and in, and one or more red bands round the bottom of their sleeves to indicate their rank. Their trousers are black, neither very wide, nor close-fitting, and stuffed into the legs of black Chinese cloth boots. On their heads they wear straw hats of the so-called sailor shape. Their belts are of cloth, a hand's-breadth in width, fastened at the side with 3 narrow straps and buckles. They are grouped as follows: 3 infantry in W of the western suburb and 2 infantry in $S$ of the south-western corner of the fortress. The officers' uniforms are similar, but light-blue, and they wear their coats outside their trousers. They fasten their swords to a leather belt worn under their coats. Their boots are often European and on their heads they wear caps like those worn by yachtsmen, with a coloured plaited band at the top, and a knob indicating their rank by means of a coloured stone in the front set in a yellow metal plate of rather large size just above the peak. - The artillery has the same equipment and uniform.

The barracks are fairly large, very clean and all have a big, open and level courtyard for exercises. The large gymnastic apparatus which you see in the courtyard of every new barracks is a deservedly striking feature. The whole thing is surrounded by a wall, 3-4 metres in height, of pounded clay. The gates are guarded by two men with fixed bayonets. Chinese are not allowed to enter without a special permit, but Europeans have no diffculty, at any rate here in Si -an-fu. When sentinels are relieved, the whole guard turns out. The sentincls change places in the presence of the captain of the guard with a great deal of ceremony and strictly according to the rules, but without exchanging a word. - When an in marches out with solemn, measured step for drill, the officer on duty takes up his position next to one of the sentinels at the gate and the detachment marches past the guard, while mutual presenting of arms and salutes are exchanged. Before starting the drill and at the end of it the detachment forms up and presents arms, including the commanding officer, to some point of the compass or, perhaps, to the spirits of the air or some other power imperceptible to an ordinary observer. Altogether it looks as though the weakness of the old Chinese troops for parades and shows had been inherited by the new ones.

Drill is carried out punctually twice a day, at 4.30 in the morning and afternoon. Each time it lasts onc or two hours. The gunners have a daily oral lesson besides. In the morning handling arms, physical exercises, marching and formations are practised, in the afternoon the same with the addition of gymnastics with apparatus. The latter is also done frequently in the morning. The artillery perform drill with their guns every morning. The drill of the infantry is irreproachable, i.e., those exercises that are carried out. Alignment during marching and wheeling are above praise. The latter is always done at the double. Altogether double-quick marching is employed very often in all kinds of evolutions. Two speeds are used in marching, a high step at a very slow pace, the knee being almost at right angles to the body and the foot being brought down with a heavy thud, and an easy step for field-marching. The former is used throughout almost the whole drill, even the officer in command usually marching in goose-step. The body is mostly bent slightly backwards, but not equally. The right arm is swung far forward with an easy movement, though almost without raising it. The "field"step appears slow in comparison with European infantry. - Rifles are handled by a large detachment as if it were one man. Formations and evolutions are good with absolute silence in the ranks. The officers and N.C.O's take a great deal of trouble. They always take up their positions afier an evolution at the double.

I saw 3 min" at drill. They handled their rifles and performed evolutions without a moment's rest for a whole hour in the hottest sunshine, very often marching in double-quick time. The easy step was entirely taboo. When marching at the double the alignment was also irreproachable and the distance between the files unaltered. Only close formations were used, except when marching round the courtyard, when columns of platoons (of 14 files) were used. Imaginary shooting also proceeded in reserve column or else it was re-formed into a broad front of 2 or 4 lines in depth, each reserve platoon being behind the wings at a slight distance and a further reserve of, I think, 2 platoons a little further behind the middle of the front line. - Target shooting is said to have been neglected

entirely during the past year. Formerly it was done more frequently. I was wh by an officer that shooting was only done now between the autumn and spring work in the fields. The men, however, assured me that no shooting had been done at all last vear. There are also no manoeuvres in the field. The troops are only led imto the field for a couple of preliminary exercises prior to the two parades, at which the goternor is present. This year it has not come off yet, though it is long overduc.

The infantry drill of the gunners cannot be compared with the description given above. The cavalry has not yet been reorganised. It is armed with rifles (carbines) with cocks and breach-loaders (apparently Mannlicher). The horses are small, but strong and broad and strikingly fat. The men I saw were young and vigorous, but they sat their horsse badly. A great deal of the cavalry is scattered at different posts and all cirill is neglected. Target shooting and any kind of practice is only indulged in as an exception. - There are no sappers or service battalions, nor have the different detachments any baggage carts or harness. - The three arms do not form brigades and none of the detachmenst have any numbers to indicate other formations.

The Manchurians have been offered land for cultivation outside the town in order to increase their supply of grain. They are said, however, to have replied proudly that they were born to fight and did not wish to learn anything but shooting with a bow and arrow!

School reform also shows more visible results in Shensi than in Kan Su, if only for the lact that in Kan Su the authorities have to pay the pupils wages, while here it is the reverse, pupils paying for tuition.

Military instruction is in the hands of the "Ludziun hsiao hsiao tang", as it is called since last year. Formerly it was known as the "Upi hsiao tang». As regards its privileges and curriculum it is on the same level as those I saw at Urumchi and Lanchow. According
to the scheme of military instruction a wludziun hsiao hsiao tang» is to be opened at Si -an-fu for the requirements of Shensi, Kan Su and Sinkiang. Nothing has been done so far in this respect, but it is reported that this school is to be established in the autumn. The reason is, perhaps, the urgent need for officers felt at present, which even seizes upon the youngsters who have only just gracluated from a \#ludziun hsiao hsiao tang. - At present the school has 18 masters, 5 of whom studied in Japan for a more or less prolonged time. - The number of pupils is 270 , but may be increased to 400 . 20 of the pupils are the sons of mandarins. Those, who are not resident in Shensi, pay 2-4 taels a month, the rest are taught free of charge. The other pupils come from families of different classes. Clothing for exercises and food are supplied free. - The course lasts 3 years." Graduates are entitled to enter the mludziun tsung hsiao tang». - The following subjects are taught:

| Japanese |  | mathematics | drawing |
| :---: | :---: | :---: | :---: |
| English |  | pedagogics (?) | regulations |
| Russian | no masters | Chinese poetry and literature | military education |
| German | at present | general history | gymnastics and |
| French |  | geography | great deal of drill. |
|  |  | physics |  |

The „Kao teng hsia tang» was opened 8 years ago. The course lasts 4 years. After a further examination in Peiping it entitles candidates to official rank (shenguan or chihli chow). $27 \mathrm{I} / 2$ taels are paid annually for tuition. Gymnastic suits and food gratis.

There are 12 masters, including 3 Japanese. Of the rest 1 from Shanghai and 2 from Peiping studied in Japan. The other 6 come from Shensi. - There are 380 pupils. The following subjects are taught:


The "Si fan hsiao tang» was opened 3 years ago. The school is divided into the following three main sections:
I. "Tien i ko". 2 years' course. On entering there is an examination in Chinese and arithmetic. Graduates are entitled to posts as masters in elementary and occasionally in secondary schools. 130 pupils.
II. "Suan ko». 3 years' course. Entrance examination in Chinese and arithmetic. 90 pupils.
III. "Ven tsuenko". 4 years' course. Entrance examination in Chinese (lower qualifications for entrance, as the course is longer). 150 pupils.

Sections 11 and III each entitle graduates to wear a mandarin's button and to aspire to a mandarin's office (though after another examination).

There is also a preparatory school here for children. There are only 14 masters, 3 of whom are Japanese, the rest being Chinese from Shanghai, Peiping and Hupeh. There is only one from Shensi and he was educated in Shanghai.

The tuition fee is 60 taels a year. Food and gymnastic uniforms free. - The subjects taught are as follows:


The "Tsung hsiao tang" (of the same type as those supposed to exist in every fur district). Opened 3 years ago. 5 years' course. Entrance examination in Chinese and arithmetic. Graduates are entitled to enter the *Kao teng hsiao tang*, though after an entrance examination. - The fee for tuition is $1 / 2$ tael per month. Pupils from other provinces so taels per year.

6 masters, I of whom is Japanese. Of the others there is one from Shanghai for English and gymnastics. None of the Chinese masters have studied abroad. - 120 pupils ( 20 not from Shensi). Subjects:

| Chinese ................ arithmetic ............... drawing |  |  |
| :---: | :---: | :---: |
| rules of propriety | Chinese classical literature | English |
| history of China | natural science (no master for |  |
|  | botany) | gymnastics |
| geography | physics | exercises and marching |

The "Hsiening hsie kao teng hsiao hsiao tang" (a type of lower elementary school, compulsory for children in every hsien and large place). Opened 3 years ago. 4 years' course which entitles graduates to enter a mtsung hsiao tang\%. 3 masters, all from $\mathrm{Si}-\mathrm{an}$-fu. 50 pupils (14-20 years old). Free tuition. Subjects:


The "Shensi i sun sundchin hsiao tang» (under the control of the Njetai). I year's course. Entrance examination in Chinese. Prepares police instructors. 8 masters (none have studied abroad). $70-80$ pupils, 1 or 2 from each hsien, where they return after completing the course. The mandarins of the different hsiens pay 50 tacls a year for each pupil. The pupils are fed and clothed by the school. - There is a shorter course in the same school for 80-90 police constables. Subjects:


The „Kung i cheng» - a school of handicraft. Established by the present Viceroy in Lanchow and like the one functioning there, though smaller. About ioo skilled workmen teach about 50 pupils. The result, especially financially, is said to be below the average and it is reported that the school is to be closed.

The »Pa chih ti tsung hsiao tang». A school for the Manchurian population. Opened 7-8 years ago Tuition, food and gymnastic suits gratis. - A "Kao teng hsiao tang» is to be established in the Manchurian town for higher education. - 6 masters, 2 of whom are Manchurians. None have studied abroad. - $60-70$ pupils. - Success is rewarded by a few dachen. Subjects taught:

Chinese literature
Manchurian "
history
geography mathematics
natural science
chemistry
physics
drawing and a little topography exercises and marching rules of propriety (?)

## English

 Japanese (no master) gymnasticsLessons proceed in all the schools from 8 to 12 and from 1 to 3 p.m.
The buildings are comfortable, and even luxurious, with large courtyards, light auditoria, occasionally built in the shape of an amphitheatre, and excellent gymnastic apparatus. Some of them already possess quite good geological, zoological, physical, chemical, anatomical and botanical collections and especially libraries. The majority of the objects come from Japan. The pupils live in couples in light and comfortable rooms and have their meals at small tables in large dining-rooms. The masters also live in the school and have their meals in their separate dining-room. Chemistry, physics, natural science and Japanese are mostly taught by Japanese masters. A couple of them use interpreters. - The masters are undoubtedly far in advance of those I saw at Lanchow. A high percentage of them has been to Japan. There are, however, too few of them in proportion to the number of pupils and many are not up to their work. The question of masters will be a weak point
in Chinese school reform for a long time, for the schools that have been opened are merely a fraction of those prescribed by the imperial edict. At least 100 schools (elementary?) are to be established in each provincial capital, not less than 40 in every fu district, and so on. - The things that strike one most, owing to the energy with which they are carried out and the novelty they represent in China, are gymnastics, marching and exercises. They are performed with heart and soul and the progress is remarkable. Riffe practice is done in all the higher schools. A black uniform with white facings is always worn for gymnastic exercises, which gives the school a purely military appearance. Occasionally the pupils are led through the town in these uniforms, carrying rifles, in military columns.

For the last two years a Manchurian, Ngen-Shu, has been in charge of the province, a man of the old school, who does not display any great interest in the work of reform. It is controlled by the Wu yens appointed by him, who are often changed. He does not seem to have any great liking for Europeans. - Yen chung chu Fantai, a man of 6o, has been here too short a time to enable any opinion to be formed of his activities, nor would it be of any particular interest, as he is soon to be replaced. His last appointment was that of Njetai at Kienyiang. - Hsi tung Njetai, a Manchurian of 45-50, has been here for 3 years. Before that he was Taotai at Tung Kwang and Sanchow. The organising of the police and the establishment of a school for police are his doing and he shows some interest in this establishment. - The Fuguan of Si -an-fu is a Chinese of 50 , who was formerly the Fu at Hanchung. He seems keen on reforms and occupies himself very successfully with the "tsung hsiao tang», which is under his immediate supervision. - Hu Hsiening hsien and Chang-an hsien Chu, Chinese of 40 and 30 , are generally praised for their justice and unselfishness. They are both decidedly in favour of reforms and have done a good deal for the elementary schools. - Chang Taotai, a Chinese of 45 , formerly Taotai at Yunnan, confines himself exclusively to his mikin", which he is said to control strictly. The „Yang wu tu» (for relations with foreigners) is presided over by Wen Taotai, a pronounced enemy of Europeans and anything that is occidental. He and his officials do all they can to place obstacles in the way of foreigners - one might almost imagine that this was the object of this department.

Trade is lively in Si -an-fu. This is obvious from the endless rows of shops that line a great many of the streets. Besides articles that are specially exported from Shensi, there is considerable traffic passing through Si -an-fu from Kan Su , its mountains and Kouwai (less) in the W to the provinces in the NE, E and SE and in the opposite direction. There are many large and wealthy business houses, but in China the larger businesses are often branches or have branches in other places, so that it is not always possible to gauge the extent of their local business correctly. The following figures may, perhaps, give a slight idea of the principal branches of exports and imports, though I consider them far from reliable.

## Exports.

Opium to the NE and SE for about to million taels (7-8 million taels) (the likin amounts to 2,400,000 taels)

Boots, shoes and stockings to Kan $\mathrm{Su}-2$ million taels
Readymade clothing (incl. old) to Kan $\mathrm{Su}-2$ million taels (?)
Cotton to Szechwan and some to Kan $\mathrm{Su}-1$ million taels (3-400,000 taels)
Antlers and musk to the E-2-300,000 taels
Cow and sheep-hides mostly from Kan Su and the mountains near Tibet, cured and despatched to the $\mathrm{E}-\mathrm{I}$ million taels
Medicinal herbs to Shansi and Honan - I million taels (600,000 taels)
Tea (sui yang cha) to Kan Su, Kouwai and Honan - 5-600,00o taels
Paper, nuts, combs to Szechwan - 5-6 million taels (?).
Lacquer and sundries to Szechwan.

## Imports.

Silk from Kwantung, Kuangsi, Kien yang - 3 million taels
sundry minor articles from Honan and Hupeh
" " and sugar from Szechwan - 1 million taels (500,000 taels)
Cotton cloth from Hunan, Sudshuang (Hupeh) - 2 million taels
(ditto from Honan and Shantung - 5 million taels)
Tea from Hunan, Hupeh and Szechwan and Fukien - 2 million taels ( $8-900,000$ )
Salt from Shansi and Kan Su (via Feng-siang-fu) - 6-700,000 taels
Chinaware from Kiangsu - 4-500,000 taels
Tobacco for water-pipes (from Kan Su ) - 300,000 taels
Foreign goods (cloth and sundries) - i million taels ( 2 million).
No minerals are exported. The output of oil, which is still small, is consumed locally. Although there are said to be large coal deposits in the province, a good deal is imported from Shansi. Si-an-fu, in particular, draws its considerable supplies of coal from there by barge along the Wei ho.

The principal centres of trade in the province are Hanchung in the SW on the river Han, its trade reported to be no less than that of Si-an-fu, and San Yuan, i i/2 days' journey to the NNW from Si-an-fu. Trade there is said to be very lively, too, not much less than in the capital. It is hard to understand how there could be such competition at such a short distance. Possibly it may be an attempt to reduce the number of crossings of the river for transit trade going $\mathrm{E}-\mathrm{W}$, but this is not very probable, because the Liu ho cannot be much more convenient than the Wei ho. Besides, the competition cannot be very great, for a great many businesses are branches of firms at $\mathrm{Si}-\mathrm{an}$-fu.

The northern part of the province is said to be very like the mountainous southern part of Kan Su , still more sparsely populated and very poor, at any rate in comparison with the other parts. The richest part is the Si -an-fu plain that has given good crops for thousands of years. Its southern part is irrigated to some extent, but not the northern part. The soil is very fertile, even when dependent on rainwater. Complete failures of the crops occur sometimes, accompanied by famine, as the inhabitants live from hand to mouth. Terrible tales are told of the last famine. For instance, the fact that there are now comparatively few beggars is said to be due to their all having perished. The avarice of the mandarins,

I was told, did not give way an inch even in such circumstances. Money that was subscribed in America, for example, is said to have been taken from the people to cover the taxes. Such heavy freight charges were imposed on the rice that was sent from the south in accordance with orders from Peiping, that nobody could buy it. While people were dying of hunger in the streets and on the roads, the rice lay rotting, badly stored and already in a bad state when it arrived. Possibly it may be used again for a similar farce, should there be another famine in some other province. Children were slain and women were sold for a song. The Dungans are supposed to have earned good money by exporting women to parts of Kan Su , where they were scarce.

During the last few decades a great many people are said to have immigrated from Shantung and founded whole villages $N$ of the Wei ho and in the northern part of the province. Silk was produced even earlier on a small scale on the $N$ bank of the Wei ho and this has been considerably increased by immigrants from Shantung. - There is said to be ginger in the Baotsi neighbourhood, oranges and sugar-cane in the Hanchung valley. The latter is said to be very fertile and prosperous.

Since the last Russo-Japanese war a considerable number of Japanese have appeared in the province. I heard of 3 staying for 15 months and 1 for 5 months at Pingliang on their way westward, to study the Russian frontier, so it was stated. 3 lived in $\mathrm{Si}-\mathrm{an}-\mathrm{fu} 3$ years ago and 7 a little later. They visited the surrounding neighbourhood frequently. There are 3 at present at San Yuan, 3 are in charge of the oil wells, 8 (?) are teachers in Si -an-fu and the prospective $\mathrm{Si}-\mathrm{an}-\mathrm{fu}$ - Tung Kwang railway was surveyed by Japanese. Seeing that the introduction of modern reforms has been effected far less energetically here than in Kan Su , they cannot be considered to play a more important part than the Belgians in Kan Su.

The information I obtained concerning the principal items in the official budget of Shensi is as follows:

Revenue:
Land tax - 2,600,000 ( $1,800,000$ ) .. Salaries to mandarins, civil and military Opium -2,700,000 (sent to ...... authorities ................... 1,300,000 taels Peiping) ............... Annual subsidy
Likin -500,000 (5-600,0000) .... to Lanchow ............ 3-400,000 "

Annual subsidy to Sinkiang | 400,000 |
| :---: |
| $(500,000)$ |$"$

War contribution ........4-500,000 "

The subsidy to Lanchow is said to be paid annually since the time of Tunchi to help that province to recover from the destruction it suffered during the Taiping rebellion. The annual subsidy to Sinkiang was formerly only 200,000 taels, but was increased not long ago to 400,000 taels. - The amount of $1,300,000$ taels under heading of ${ }^{\text {Salaries }}$ to mandarins, civil and military authorities» includes Ku yuen tidu for maintenance of troops 300,000, annual contribution to Peiping 8-900,000. The amounts allocated for maintenance of troops seem very small. Indeed, this budget that I was able to draw up


The Roman Catholic mission at Si-an-fu.
appears very vague and the figures seem to be unreliable. The war contribution is covered by increasing the land tax by $30^{\circ}{ }_{0}$. No wonder that Europeans are unpopular.

Talking of Europeans, I cannot refrain from mentioning the work of the missionaries at Si-an-fu. The Roman Catholic mission, run by Franciscan monks, is the most important. Their headquarters, situated in the village of Tong yuan fang, a day's journey N of the town, cannot fail to arouse admiration, especially if you happen to come from the Wild West of China. In the whole province there are about 23,000 Roman Catholics distributed at many missionary stations. Bishop Goette, who died quite recently, was to a large extent the. founder of the fine philanthropical institutions of which the mission may justly feel proud. Everyone is full of his praises, even Protestants. There is a hospital with airy rooms and to beds in the town. The dispensary is well equipped and there is an appreciable number of daily callers. A nun, Italian by birth, acts as senior doctor and matron. It is strange that there is no actual doctor. When an operation has to be performed in their neat operating theatre, one of the English Baptist missionaries is called in. A school, originally intended for the daughters of mandarins, but now open to other children as well, is run by the nuns. In another young Chinese are taught English. It is superintended by an exceptionally amiable English Franciscan, Father Hugh. - The church is imposing and the whole place with its rosebushes, flower gardens, airy courtyards and white houses gives an impression of cleanliness, order and peace that makes a visit there in the midst of the dust and dirt of China a real pleasure. - Father Gabriel, an excellent simple and broadminded Breton,

The wearing room of the gill' shool in the
Roman Catholic comeont at Si-an-fu.

resident in China for 20 years, is in charge of the diocese lir the time being. I nader his guidance I was shown all the details of the establishment, drank coffer with the nuns and had a large dinner with the monks, wo of whom were (hines. During my fortnight's stay at Si-an-fu I had the pleasure of seeing Father (babrict and lather Hugh several times, and I will always remember with gratitude the long talks. I had with those devoted servants of their church.

The Swedish colony in Si -an-fu consists of no less than three families (.Anderson, Bentsson, Nordlund) and a missionary. The first, a worthy specimen of an excellent and frank Swede, is the secretary, if I am not mistaken, of three amalgamated Protestant missions with their headquarters in the United States. Bentsson is the principal of a school, in which a few dozen Chinese are trained for the Church or for missionary work alter complating their studies at one of the mission stations. It is too early to say whether the results will justify the hopes that the school inspires. The establishment is comfortable and practical.

There is a small English colony of 3 or 4 families in the E part of the town and in the E suburb. My short stay and some arrears of work prevented my making their acquaintance. The Italian nun told me that there were one or two qualified doctors among them with a large practice among the local population.

The newest member of the European colony is Mr Manners, the manager of the comfortable and fine local post-office. I met him on several occasions and we did some sight-
seeing together. The sights are far less interesting than one would have expected. Possibly an archaeologist or sinologist might discover hidden treasures that escape the inexperienced eye of a tourist. I doubt this, however, unless excavations were to be made in the vicinity. They should yield interesting results, although it may be assumed that the greater part of the treasures hidden in the graves has been stolen in the course of time. In addition to the graves near Kienchow that I have mentioned, an Emperor Outiline is supposed to have been buried $15-20$ li from a small place called Hingping (about 100 li from Si-an-fu -N ?).

The town is supposed to have been founded during the Han dynasty (according to other reports even earlier). The original town is said to have been built during the reign of the Emperor Tsing-hsi-huan. During the Han dynasty Si-an-fu was the capital of the country and remained so until the Sung dynasty, when the capital was transferred to Pingliang (Fu) (= Kai-feng-fu). Peiping only became the capital during the Yun dynasty. - The town is said to have been rebuilt during the time of the Emperor T'ang. At that time it was called Ch'ang-an or Si-King (the capital of the west). Its former site is pointed out halfway between the present Si -an-fu and Sien yang on the Wei ho. Others say that there was merely a country seat there. According to old Chinese annals it is supposed to have occupied the whole space between the latter place and Lintung. If they are to be credited, greater luxury, pomp and comfort were indulged in there at that time than at any court or great metropolis to-day. Even to-day a Chinese historian would, no doubt, describe the official residences of the mandarins with their spacious courtyards, colonnades, cen-turies-old trees etc., their public appearances, surrounded by red-clad "heyduks» carrying the gilded emblems of office, the temples with their enormous gilded idols, as a refinement of luxury passing all description. The reader would never suspect that the palaces were mostly simple houses built of clay, the heyduks tatterdemalions clothed in rags, the streets often a stinking sea of dust and dirt and so on.

From gate to gate the town measures about 3 miles from W to E and not quite 2 miles from S to N . The main streets are paved with blocks of stone, and although they are rather narrow, it is a pleasure to walk along them, especially if you come from the W and have not seen anything better for a couple of years. There is a continuous row of shops along both sides of a large number of streets; every open space, however small, is occupied by small stands, large or small tables, at which bachelors and travellers have their meals etc. Traffic is very lively, arbahs, wheelbarrows, horsemen and pedestrians moving about in all directions without any order. From time to time a couple of vehicles collide, other vehicles and loiterers come up and in a few moments there is a throng of shouting men, animals and vehicles that it is difficult to disentangle. Closer to the town walls the quarters are poorer. Poorly populated, crooked lanes frequently alternate with more or less empty spaces. The NE part of the town is inhabited by the Manchurian population and is separated from the rest by a very decayed clay wall, 35-40 feet high, with several gates, and running along two of the main streets. This part of the town is poor and neglected. I was told that the Manchurian population was deprived of its means of subsistence, because the troops it had formed fled ignominiously before the Dungans, and had since then suffered great
poverty. They do not show any inclination, however, to improve their position by work. In order to increase the quantity of grain distributed to them annually the Fantai proposed that a number of men of each tchi should plough up some new land belonging to the State. But they replied proudly that they were born to be warriors, and knew nothing of other occupations than riding and using their bows and arrows - they had no desire to learn anything else. -- The regiment they have formed is worse trained than the Chinese regiments and a school established among them seems to be below the level of the corresponding Chinese schools, though rewards in money are given to successful pupils.

In the NW part of the Manchurian town there is a rectangular open space enclosed by a wall, used at present as a drill-ground. It is known as the \#mperial town and the imperial palaces are said to have stood there formerly. In one corner of it there is a piece of rock raised above some others with a deep impression of an uncommonly large hand on its surface. A legend says that it is the impression of the hand of the Empress Wu heo, the wife of the Emperor Kao Tsong, both buried near Kienchow. Subsequently she usurped the power of her son Chong tsong and ruled for several years with a rod of iron. There is supposed to be a great resemblance bet ween this ambitious woman and the reigning Empress-Dowager.

The present imperial palace, so-called because during his flight in 1900 the Emperor lived there, is nothing more than the fairly big yamen of the former Viceroy of Si-an-fu. It was obviously furnished in a hurry for the august visitor. Since the departure of the Emperor everything has been left as untouched as is possible in China. The bedrooms are sealed up. The rest is neither in good taste nor comfortable, with the exception of an odd woodcarving and a few other things in the same style. Everything is in yellow, the traditional imperial colour, even the pier-glasses are half covered by yellow padded hood-like covers. The only thing of beauty about the palace is a charming little garden. Ancient trees, flowers, rockeries artistically put together of blocks of stones, arched stone bridges, a little pond, lying a few dozen feet down, with stone quays and balustrades and green plants floating on an almost black shiny surface, it all takes up so little space that it could almost be covered by a sheet. Round it there are two or three comfortably furnished elegant pagodas with spacious verandas, from which this treasure can be viewed from different sides.

Among the other sights the so-called "peiling" is worth noting, a collection of monuments of various periods, standing like soldiers in long rows and protected by some primitive wooden sheds built on a plot of grass in the shade of some trees. This collection of a few dozen was recently enriched by the addition of the famous Nestorian stone. The Chinese authorities had it removed to this place from the spot outside the town, where it was discovered. Their reason for doing so is rather curious. A young Dane, v. H., winterprête de S. M. le R. de D.» arrived quite suddenly in Si-an-fu a few months ago in order, according to his own version, to have an exact copy of the famous stone made for some museum. However, the rumour got about, that it was his intention to carry off the genuine stone and leave the copy. This aroused the indignation of the Protestant missionaries and one of them is reported to have said that in any case the stone belonged more to him, who


The outer courtyard of the palace urcupied by the Emperor of China in 1900, white a fugitive at Si-an-fu.
had lived in China for 20 years, than to v. H., who had only arrived a day or two before The rumour came to the ears of the Chinese authorities and the day before the copy was completed the model was removed to the "peiling".

The Pa San Kung temple in the E suburb is greatly venerated by the Chinese inhabitants. It is quite pretty and apparently very old. Two slabs with inscriptions on a gilded background record a visit paid by the imperial personages during their stay at Si -an-fu. - Another temple, very large and more richly decorated, stands on the main street not far from the centre of the town. It is called "cheng huang miao" (the temple of the town god) and is reached by a kind of passage - a covered-in, very lively shopping street built in the courtyard that invariably precedes a Chinese temple.

In the Mohammedan quarter of the town, covering a considerable space N of the centre of the town, there are several mosques. I visited the largest, a very beautiful mosque with wooden carvings along the walls, stone gates, pictures and pagodas in the large courtyard. The old mullah of the mosque was evidently used to foreigners' visits. He produced a couple of books at once, which he urged me to buy, assuring me that all foreigners were keen to acquire them. The name of the temple is "Cheng chun tasu" and it is said to have been founded during the T'ang dynasty, a fact which is supposed to be recorded on the stone slabs in it, both Chinese and Arabic.

The number of Dungans at $\mathrm{Si}-\mathrm{an}$-fu is said to be about 50,000 . They are supposed to have removed there during the T'ang dynasty. A Chinese general of 90 (?) had admired their courage in Kouwai and had persuaded them to accompany him to Kuli. They themselves say that they came originally from Turkey (Istanbul), they still take a great interest in that country and speak of the Sultan with veneration. - The Chinese authorities, however, seem to have been displeased with the Dungans and soon the question was broached of massacring them. The old general suggested the Macchiavellian scheme

of assigning space to them next to the river which would perform the task of its own accord. In this way the Chinese authorities would not be exposed to the accusation of having been ungrateful to men who had fought bravely in their ranks. Soon the most prosperous villages of the district grew up along the river and it was close to Weinanhsien that the Dungan revolt began. During and after its suppression the greater part of these people were massacred. The few survivors were exiled to Kan Su , where flourishing villages were founded by them, e.g., N of Tsingshui hsien, a large village. - Exposed to the threat of the guns of the Chinese garrison, the Mohammedan population did not dare to join the insurgents and this saved them from annihilation. At present, with the exception of the place referred to, there are Dungans only in the $N$ part of Shensi, where, as it were, they form a continuation of the belt of Mohammedan inhabitants that extends eastward from Sining over Hochow and Central Kan Su. These people are congregated mostly in the neighbourhood of these two places and, as I was told, round Ning-sia-fu. It is difficult to say how many of them there are. I do not think, however, that there are more than a million. This is based chiefly on information obtained at Hochow. Some of them speak a language rather like Mongolian. I heard it spoken between Lanchow and Hochow. I was also told that it was spoken in some places near Pingliang Fu and in Northern Shensi.

I was persuaded by Father Gabriel, the Franciscan "père vicairen, when leaving Si-an-fu, May 1 to take the road over Tung yuan fang, where most of their work has been done for a long Tung, time past. Both the Fathers were at my inn on the stroke of 5 and we started together. Mr fang in Manners was prevented from joining us at the last moment and had to give up the excursion.

The road led through the N gate of the town in a N direction. A fertile plain with large houses and small villages is spread out as far as you can see. The land is tilled every-


The principal mosque at Si-an-fu: the courlyard and pagodas.
where and the fields seemed to be in excellent condition. On this plain, which it takes several days to cross, the harvest is got in within 2 or 3 days with the help of thousands upon thousands of people who come from the adjacent mountains and from distant parts of Kan $\mathrm{Su} .-25-30$ li from the town we rode through Tsaotantzu, a village with a lively bazaar. It is said to be the principal coal store of Si -an-fu. Coal is brought there from Shansi in big barges. When we reached the bank of the Wei ho after riding for a couple of miles through deep sand, we saw a whole row of barges there with coal or coke and ploughblades of cast-iron, also from Shansi. A little lower down lively traffic was going on with 4 or 5 barges between the banks of the river. Its width here, too, was 235 yards or, perhaps, slightly more. The depth just now was slightly more than the height of a man. The loading of the barges proceeded to the accompaniment of singing, reminiscent of traffic on the Volga.

2-3 li from the bank of the river there is a rise of a few dozen feet which forces its way like a wedge between the Wei ho and King ho and becomes level with the surface a little $E$ of the road, i.e., a little before the confluence of the latter river with the Wei ho. We cut through this rise by a valley that divided it into two. On the right, its edge was crowned with one of the small forts put up against the Dungans, visible a long way off like a beacon. We crossed the King ho a few li further on. It was $15-20$ fect wide, and as the water only came up a little higher than the horses' bellies, we were not obliged to wait for the ferry. The current was very slight and the bottom consisted of firm sand. On the opposite bank we noticed a slight undulation of the ground which was, in other respects, like the part of the plain S of the river that I have already described. In the far distance to the left we could see the tall, narrow tower of Kingyanghsien, in many storeys, and halfway to the right another that indicated the approximate site of the town of Kaolinghsien. Both towns are situated at some distance from the towers bearing their names.


We reached the walls of Tung yuan fang after covering about 80 li. The main buildings are visible at a distance of quite $3 \mathrm{I} / 2-4$ miles. We were met to the strains of the Russian national anthem and "God save the King», played by a Chinese brass band that had been trained by one of the fathers, by the bearded hosts, 3 Spanish and i Italian Franciscan monks and Father Juniper Doolin, a newly-arrived Californian whose acquaintance I had made at Si-an-fu. Conversation was not easy, as I had forgotten my Latin long ago and my Chinese was not yet fluent, but my reception was none the less cordial. The main building of the monastery is a fine three-storeyed brick building with columns and galleries in front of one gable. The interior is rather like a hotel with long corridors and rooms on either side. The refectory and reading room are on the ground floor, fairly large, but without any decoration except a few pictures illustrating subjects from the Bible. The simplicity of the place is extreme and there is something sombre about the rooms, in spite of the good spirits of the monks. There are some excellent spare rooms on the first floor, one of which was assigned to me. The carefully washed and ironed sheets bore witness to the forethought and kindness of the monks. The church, an old building, adjoins this house, its two towers with sleeping lions being joined by a fine new stone façade. The interior is simpler than at Si -an-fu, but well cared for in all its details. Four stone tablets let into the wall indicate the last resting place of four bishops. Each side of the courtyard, shaded by trees, is decorated with two long rows of stone monuments erected in memory of monks and a couple of bishops.

A small door leads from this courtyard to the women's quarters. On the right, behind the wall, you pass a little hospital of ${ }_{15}$ beds and 2 well-equipped dispensaries, the entrance being from the village street. The Mother Superior Rosalie is a French woman from Metz. She received me in the quiet and natural manner of a woman of the world and led us into a pretty little dining-room in a smaller building surrounded by 4 small gardens. After a dinner that was choice and plentiful for Central Asia, we visited the various establishments of the mission.

In their extensive philanthropical work the nuns devote their attention most of all to the so-called \#sainte enfance», a school for about 300 small girls abandoned for various reasons by their parents. They are housed in a very large brick building surrounding a courtyard. The lower floor is occupied by the dining-room and 6 large dormitories, the upper floor by large, light rooms for classes, needlework and gymnastics. The girls have acquired great skill in handicraft. They make their own clothes, knit stockings, weave cotton cloth and ribbons, and do charming embroidery. A beginning has just been made in breeding silkworms. The idea is to maintain and bring up the children on a commercial basis as far as possible. About a dozen deaf and dumb girls are taught separately by one of the nuns. In addition about 1,000 deserted girls are kept at the expense of the mission in Christian Chinese families. Up to the age of 8 the cost of maintenance amounts to $6-8$ taels a year for each child and later slightly more. The mission keeps charge of them until they get married, as a rule to Catholics.

A boys' school for about 100 youngsters from the mission stations in the neighbourhood is run by one of the fathers. The best pupils enter a seminary that prepares them for the priesthood. About 20 boys from the village at the monastery are trained by one of the sisters to become French interpreters. I witnessed a performance of "Mangegosse et petit Pousset», a little play with some songs acted by all the pupils of the school. They performed very creditably and were very amusing, when, after the play, they sang some comic songs in turn. „Pousset», a child of six, was not disturbed in the least by our presence and sang a snatch of song with appropriate gestures, and"Mangegosse» was very comical - swinging his cane and accompanying his hoarse little voice with the gestures of a true dandy.

There is a special section for a few dozen children who are mentally or physically deficient and will probably remain on the hands of the mission for the whole of their lives. Quite a number of grown-up cripples could be seen in the courtyards, gardens and kitchen of the monastery.

The kitchen garden, which was large and contained many vegetables unknown elsewhere in China, is managed by the nuns. There are only 15 of them, but they seem to find time for all their duties. The women's division was established 18 years ago and already there are in tombstones along one of the walls. The Superior told me that the first years were very hard, but that she would not return now, even if she had the chance. None of the nuns had ever gone back.

In the evening I had a heavy supper in the same little dining-room, where the table was decorated with fresh roses. "La mère Georgine», an excellent old Swiss woman, waited on the Fathers and me and forced everything the monastery could offer on me with gentle persistence. After listening to some music played by the brass band in the garden in front of the main building I left in order to make a start early the next morning.

May 14th. Provided with a large sack of food by the nuns, I mounted my horse, while the pupils Lintung (hsien). of the seminary sang the Russian national anthem to the great delight of the villagers. Having thanked the numerous Fathers for their wonderful hospitality, we started on our way through the gate in the fortress wall that surrounds their village - an insignificant

Ston' gateway and two stone
horses near Tung yuan fong.

wall that is scarcely likely to save the inhabitants from a terrible death, should another Boxer rising ever occur in this unfathomable Chinese sea of humanity with its prejudices and unrest. - Father Hugh, who returned to Si-an-fu via Lintung in order to bear me company, said that the number of Chinese to be baptised annually has become about four times larger since the Boxer rising. When I asked what he thought the reason might be, he replied: „C'est la grâce, le sang des martyrs est la semence de la foi».

A short distance from the village we passed a picturesque old "peilu", approached by an avenue of 2 stone cubes and further on 2 stone horses, almost life-size. They were roughly carved and scared all our horses. The ground undulates slightly, almost imperceptibly. There were many houses and small villages, their well tended and well constructed buildings indicating that the owners were prosperous. Stone gates, horses, sheep and human figures carved of stone showed up here and there in the fields, in which the corn was already ripening. The old, grey clay wall of Kaoling hsien rose up some distance to the left of the road. We rode close past its high, lonely tower that was already visible yesterday.

We passed a couple of big villages. The ground dips towards the Wei ho, flowing beyond some groves of trees. Trees and groves had become considerably more numerous and could be seen to continue on the opposite bank. We reached the river a few li from the dip in the ground and crossed it by a ferry. The N bank was flat and sandy; the S bank rose in the form of a ledge, a few dozen feet in height. It was far more shady than the N bank. Our goal for the day, the town of Lintung hsien, an old place celebrated for its hot sulphur springs, lay about a dozen li from the river. The springs lie just $S$ of the town, at the very foot of Lishan, a rather steep, grassy hill that projects very much northward from Huan ku shan. On the crest of Lishan there is a temple, named after the hill. It is said to be visited a great deal by Chinese pilgrims from the surrounding districts. The town is very
small, as is proved by the fact that I was unable to change 15 taels into silver. The distance covered was about $60-70$ li.

We rode straight up to the springs, round which there was a charming group of large, airy pagodas, divided by small ponds, high arched bridges and gardens. Mr. Manners arrived from the town soon after us. The springs, are surrounded by a large pool, about $11 / 2$ metres deep, built of large stone slabs under an arch in the hill. From this the water is led 102 or 3 stone baths in the pagodas. The temperature of the water in the pool, at the bottom and at the surface, is $37.5^{\circ} \mathrm{R}$. The baths were visited by the Empress of China during her sojourn al Si -an-fu after her flight from Peiping in 1 goo.

Later Tung Hsietai arrived from Tientsin on his way to Si-an-fu with his aged mother, 3 wives and many children. We made his acquaintance and exchanged calls. He had been appointed to command the "ti i paon, and was 52 , though he did not look much over 40 . He had twice stayed in Japan, altogether for 7 months. He, too, spoke of the Japanese with anything but friendliness. Their duplicity, cunning, selfishness and deceitfulness are qualities that strike every Chinese who comes into contact with them. In his opinion the Chinese would probably not elect to study western culture under the Japanese if they had a free choice. They had to visit the country on account of the Emperor's orders. A hsien will probably be established in Shensi and later a chen, which will either be incorporated in the "pei yan" army or remain independent. At present the artillery was not at full strength and the cavalry had not been converted into mudziun». -- The weather was splendid. We spent an unusually pleasant afternoon in the beautiful surroundings of the springs, refreshed ourselves by taking a hot bath and regaled ourselves with the food the nuns had given us and other refreshments. In the light of the full moon the place looked lovely later in the evening.

May 15th. From Lintung the road went in a NE direction. The terrain was the same as yesterday, Weinan hsien. a large, fairly shady plain with a very slight fall towards the river, the opposite bank of which was unfolded to our view as if on a salver until it was lost in the dust-laden air. It was only from time to time that we caught a glimpse of the river sparkling between the dense clumps of trees close to it. For a time Lishan remained near the road, but soon it took a more southerly course and disappeared among some ridge-like heights that came up to the road further on. The jagged outlines of the mountains in the S were almost entirely obscured by the thick at mosphere. The road ran for the greater part in a ravine-like valley, so broad that a couple of arbahs could often pass each other, though with some difficulty. The steep sides hid the landscape for the greater part of the way. The ridge coming from the S was no great height, with slight slopes, along which fields laid out in terraces reached its crest. Occasionally we passed the ruins of a temple or some other building -- a reminder of the Dungan revolt. Not far from Lintung we saw some burial mounds, smaller in size, but of the same kind as those seen on the road from Lanchow to Si -an-fu. One of them is supposed to contain the remains of Tsin chohang, the builder of the Great Wall. The story goes that the innumerable sacrifices that its building cost made him so hated that he was buried simultaneously in several places in order that no one should know where he rested, and
desecrate his grave. We passed the following villages: 20 li (from Lintung) Sinfeng Cheng with 80 houses; 30 li Siho with 8; 40 li Linku with 90 on the Linku ho, also very small; 55 li Shetien with 10 ; and 65 li Lanchiapu with 8.

We reached the town of Weinan hsien after riding 8 oli . The place is celebrated for the fact that the Dungan revolt first broke out there. An old Chinese told me that the cause consisted in constant quarrels and fights over manure that the Dungans took from the Chinese. In order to put a stop to this the mandarin of the district had threatened to execute io Dungans for every Chinese that was killed, but only to behead one Chinese for every Dungan killed. As this did not help, he declared that the life of a Dungan was not worth more than a donkey and that for every Dungan killed he would have a Chinese donkey destroyed. This was more than the Dungans could tolerate. They came over from the northern bank of the river and pillaged the villages of the Chinese on several occasions. They created such a panic that the mere news that they had crossed the river was sufficient to empty the Chinese villages and make the inhabitants seek shelter in the mountains. Constant watch was kept on a hill, so that the people could be warned by a shot that the Dungans were crossing the river. - After 7 months of devastation Chinese troops arrived with guns under the command of a general and the Dungans were forced to seek safety by fleeing to Kan Su , whence they never returned.

The town population amounts to $600-700 \mathrm{tja}$, the population of the district to $30-$ 50,000 tja. Wheat, different kinds of peas, mustard, maize, cotton, tchingmi (?), rice, hemp, opium, beetroot and lucerne are grown. Average crop $10-12$ fold. The manufacture of straw hats and various kinds of basket-work are specialities of the district. - Snow between the roth and 2nd months (sometimes up to the 4 th), but it does not lie. Plenty of rain between the 3rd and 9th months.

2 or 3 li E of the town we reached the foot of the ridge. The road climbed a little way up its slope by a solid stone gate built on the ledge. About $\mathrm{r} / 3$ of a mile further north the Wei ho described a couple of sharp curves. Soon we came down the slope again. There had been light rain during the night. The road was dirty and slippery in parts, but the air was considerably clearer than during the past few days. After 22 li we crossed a small river, the Che shui ho, flowing northward, by a high, arched, splendid old stone bridge. Part of the solid stone slabs of the balustrade had fallen down. The carvings on the remaining ones were so worn that it was difficult to distinguish what they represented. A village, named after the river, lay on both sides.

The hills in the $S$ gradually retreated more and more. Instead, the mountain range stood out more clearly. Soon it was scarcely a dozen miles from the road. The slopes were grassy and appeared to be very steep. The rugged outlines of the mountain chain were far more picturesque than those of the mountains we saw on the way between Lanchow and Si -an-fu. When the sun broke through the clouds, we beheld a smiling and beautiful landscape with numerous groves of shady trees that looked like small woods. The lush verdure was interrupted time after time by the flowers, at times bright, at others dark


View from the foot of Hwai shan.
red, of the poppy-fields. Apparently far more poppies are grown in the Weinan and Hachow districts than in the immediate neighbourhood of Si-an-fu.

Once more the road led us over a centuries-old stone bridge, under which a small, low-lying river flowed. On the E of it the road was slightly marshy for a couple of short stretches and must be rather difficult after heavy rain. Throughout almost the whole journey it ran between two rows of tall, shady trees. - After 50 li we passed the town of Hwachow, embedded in verdure. Judging by the shops and stands, basket-work and roughly glazed clay vessels must be a speciality produced in the place. We had to cross many well-built, broad stone bridges over dug canals before we reached the village of Hwai mao after a journey of $120-125 \mathrm{li}$.

During the journey we passed the following villages: (the distance reckoned from Weinan): 7 li Tsahutserh with io houses; io li Shih-li-pu with 7; 15 li Hing tserh with 20; 20 li Che shul chang with $180 ; 25$ li Tao cha pu with $50 ; 35$ li Shihyn-li-pu with 5 ; and 50 li the town of Hwachow.
(Distance from Hwachow): io li Lao men chow with 35 houses; 15 li Liang ha se with 5 ; 20 li Liutzu with 20; 30 li Thai thu with 1,000 , (of which only a small group close to the road); 40 li Fushui with 50 on a small river of the same name; 50 li Yu-shih-li-pu with 5 ; 60 li Hie chow with 4; 70 li Hwai hsien; and 75 li Hwai mao.

The same plants are grown here as at Weinan. The average crop, however, is said to be only $7-8$ fold, owing to the scarcity of rain. The neighbourhood is said to be rich in fruit.

May 17th. S or, perhaps, SSW of Hwai mao a dark group of 3 steep peaks rises from the adjacent Vanfeng chain of mountains. Their sides, falling perpendicularly at times, and their rugged outlines temple. can be seen by any traveller a few dozen miles before reaching Hwai mao. It is impos-

sidle to pass through this neighbourhood on a clear day without casting an admiring glance at this little group of mountains, which is called Hwai shan. On its crest stand several Taoist temples, to which thousands of Chinese make an annual pilgrimage. I was both to leave the neighbourhood without having visited this sacred spot. Having ridden about 15 li southward across the plain, covered with large groves of trees, we reached a small tillage, Mu chan yuan, at the very foot of the mountain. A larger village, Turshan, with 500 houses, lies a couple of li further N. A young wood of bamboos grows at the foot of the mountain and at Mu chan yuan a narrow gorge opens up, at the end of which the peaks of Hwai shan seem to rise up.

Porters were available to carry our belongings. This is evidently a source of income, on which the villagers reckon, for there are whole gangs under the leadership of a foreman. Our instruments, cartridges, food-sacks, blankets and warm clothing were soon packed in baskets similar to knapsacks that held a good deal in spite of their small size. The inhat bitants declared unanimously that the way was long ( 70 li ) and exhausting, cen breakneck in some places. To be on the safe side and to be sure of doing the trip in a day, I hired a litter carried by two apparently feeble, 20 year old Chinese, and to escape the ignoming of being the only one to be carried, I hired another for the cook and Tchao, in which they were to take turns. Altogether I engaged 7 Chinese at 400 cash a day each. The litter was a light little Chinese armchair tied to two springy boards. Lukanin, whom

I allowed to choose whether he would come or not, decided to stay behind. He explained that he had never done any great distance on foot and was afraid of not lasting out. It is typical of Russians as a rule that they love to rest and will curb their curiosity if its satisfaction entails physical exertion. Hsy also displayed great satisfaction over my allowing him not to accompany me.

The road leading up the valley was not breakneck, but very steep and tiring for long stretches. The local people put the distance at 40 li to Nan feng, the largest temple, from the village of Y tchyen yen. The effort required evidently plays some part in determining the distance, which cannot exceed $30-34 \mathrm{li}$. The climb took us about 10 hours, including some short halts. The descent, which went very rapidly, took 4 hours and 20 minutes, after deducting halts.

The gorge, at the bottom of which a little river forms numerous cascades, is charming. The steep mountains rise to a giddy height. One peak in particular at the end of the gorge, shaped like a sugar-loaf with two perpendicular sides, was beautiful. It rose above all the surrounding mountains. There was another steep peak in a side-gorge to the E. They were connected and woods of fir-trees were growing on them. The little temple ol Nan feng stood among tall firs on the latter peak. Grass and small green bushes grew in every little crevice of the mountains. The bottom of the gorge was also green with plants growing between the stones. Small temples or shrines with curved tiled roofs could be scen practically everywhere, embedded in verdure. Some were blasted into the side of the rock and only a rectangular doorway could be seen of them. First we would pass a small niche carved in the rock with its altars and images, then simply some large characters carved in the mountain. Everywhere monstrous idols with rolling eyes, wildly brandished staffs, swords, brushes or other insignia of their dignity or office peer at you from the clepth of these caverns. In a couple of niches I saw Buddha images, the indescribably calm faces of which, untouched by worldly turmoil, with half-closed eyelids, formed a wonderful contrast to these wild Chinese divinities. - Primitive stairs, mostly cut into the rock, led up the steepest places. Some consisted of several hundred steps and were almost perpendicular. Every projection of the mountain, however small, had been utilised. Where there were none, a rough step or a hollow in the shape of a horseshoe had been cut to afford a hold. In dangerous spots one, or sometimes two long, rough chains with large rings had been riveted into the rock to act as a handrail. They were threaded through loops fixed into the side of the mountain. In places where the road crept along the narrow crest of a bare ridge, remains were still left of low stone balustrades with carved figures similar to those you see on old Chinese bridges. Occasionally a stairway had been fixed in a crevice between a perpendicular wall of rock and a gigantic boulder torn from it, so narrow that you had to bend over to one side in order to advance. At other times you had to bend almost double under a fallen rock that almost closed a crevice. There must have been several thousand steps, but the way is not dangerous.

There are endless legends about the gorge, the creations of the superstitious fancy of the people or of the endeavours of the Taoist priests to exploit it. You hear tales of a fish pressed against the mountain, so that its shape can still be seen, or a snake imprisoned

in a crevice, so that only its head protrudes. High up on a ridge you see a stone bear that has sat there since the world was created, if not longer. A cave high up in a perpendicular wall of rock with traces of water issuing from it is the navel of the creator (Laotze chin). Behind two stone tablets let into a rock there is said to be the cup, into which the dice were thrown, when the Emperor Chao-Kwang-yin of the Sung dynasty lost the mountain to the monk who founded the monastery. At that time he had not yet succeeded to the throne, but was already known as an inveterate gambler and daring adventurer. The monk had an inspiration that he would one day become emperor, induced him to play for the mountain as a stake and to sign a deed, when he lost, which he did all the more readily as the mountain did not belong to him. In one of the temples you are shown the place, where the same men played draughts; the traces of the god's (Lao-chin) hand are also visible there. In another there is a stone horse, in a third the plough, with which Lao-chin himself used to plough. His horse has left an imprint of its hoof on an inaccessible mountain side. Near one temple, flowers are seen in the rock - close to another there is a pool in which people search for lucky copper coins. Whoever finds one is sure to have his wishes fulfilled. In his joy he throws less lucky coins into the water as an offering and in this simple manner this inexhaustible supply is kept up.

The principal temples on the mountain are Nan feng (built during the T'ang dynasty), Pei feng (of the Yan Ch'an dynasty), Tsung feng, Hsi feng, Tung feng and Nan tian feng, which can only be reached by people who are willing to risk their lives on a rotten


The temples at Huai shan; the cook on a litter.
bridge. - At Nan feng there are some uncommonly well furnished rooms for pilgrims of the better classes. The host is a hospitable and unusually clean priest. Among a great number of Chinese poems and mottoes that embellished the belfry, I saw some verses in Swedish about the Saviour, signed by 3 women and 2 men, evidently missionaries. The view was one of the most extensive possible and very beautiful. To the E, S and W there were boundless masses of mountains. To the N lay the Hing-an valley at the junction of the Wei ho and the Hwang ho, which flowed from the north in two mains arms, and, immediately after receiving the waters of the Wei ho, made a sharp bend to the E. On the other side of it to the NE lay the low, characterless mountains of Shensi and to the N and NW a flat plain that seemed interminable and finally lost itself in the distance. The mighty waters of the Wei ho and Hwang ho looked like two brownish-yellow streams.

In the light of the full moon on this mild and calm evening it was a picture of exceptional beauty. Everything pales, however, before sunrise seen from the mountains. I shall never forget the magnificent sight, when shortly before 5 o'clock the golden disc of the sun appeared above the masses of grey and dark green mountain ridges spread out like a boundless ocean below our peak. A slight mist enveloped the mountains and the rays of the sun produced magical light effects, as they gradually dissolved it.

During the descent we caught sight, high on a ridge, of a solitary ibex standing guard over its mates grazing on the other side of the mountain. Its coat was considerably darker than that of those I had shot in the Tian Shan mountains. Its horns were not clearly visible, but the local men said they were slightly curved backwards at their tips and not more than a foot in length. Through my glasses I could see it wagging its tail, like a calf's tail. It seemed to be the size of a calf.

A photograph taken during the descent from the temples at Hwai shan.


From Hwai shan the road took us again through Hwai mao, a big village, the importance of which is probably due to its position on the highroad. It was 2.30 , when we reached the village. There was still time for us to reach Tung Kwang before dark, the distance being (ting). calculated at not over 35 li . We soon covered this, though it seemed much longer owing to the monotony of the road and the dust. The road ran partly in a hollow again that shut out the view. When it opened up, we saw the same level, green plain as during the previous days. Its absolutely level surface made the few trees we could see yesterday from the mountain look like shady, almost wooded land. Traffic E of Si -an-fu was lively.

We met many heavily laden arbahs and quite a number of pedestrians and horsemen. They raised clouds of dust that remained motionless for a long time and shrouded the road in yellow darkness. The way between Si -an-fu and Ting Kwang was full of beggars, squatting on their knees in the dust or running after us and begging for alms in high voices. The priestly monks were of another kind. They established themselves on the road and recalled passers-by from their daydreams by striking a hanging bell or metal plate and then approaching discreetly with a tray.

Immediately to the E of Hwai mao lies Yang ha thun, a village of $100-150$ houses, on the left of the road and at some distance from it. It has almost the appearance of a town owing to its long, well-preserved wall. After covering ${ }_{15}$ li we passed Chuantien in two groups of 15 and 80 houses, close to the road. 5 li beyond we came to King fang with io houses and another 5 li beyond to Chao-chow with 40.

A short distance before reaching Tung Kwang the Hang ho comes into sight, flowing ESE in a wide bed. Hills of soft earth approached the road on the right and came up to it just before the town. The latter stands about 700 feet above the flat bank of the river,


The West tower of Tung Kwang.
resting against the hills that enclose it on the $S$ and $S E$, even almost on the $E$. The town is intersected by the river Lo ho, the valley of which divides the hills in two. At this time of year there was only a little water in the bed of the river, which was a few dozen feet in width. The wall of the fortress is about 49 feet high, built of baked bricks, but without a moat or outer protected area. A continuation of this wall, but of pounded clay, encloses the crest of the nearest hills. The wall facing the river is built in a semicircle. To the S , W and N (?) there are brick towers of four storeys with 8 embrasures for guns towards the plain and 2 towards either side in each storey. There are many small clay houses on the ramparts. The gates are double and of the usual construction and size. The river, which makes a slight curve just before it reaches the town, is about a mile wide, but narrows down to about $2 / 3$ of a mile just before the wall. At this spot a ferry carries travellers across, when they take the highway to Tai-yuan-fu. The opposite bank has a steep fall that slopes away to the west. Further off in the NE the grey hills of Shansi can be seen.

The town of Tung Kwang is said to have been built in the days of Shih Hwang Ti (the builder of the Great Wall). It was probably subsequently destroyed by wars and floods, for there is nothing to be seen to indicate such a remote period. The temples and monuments are not more than a few centuries old and there is no mention of ancient ruins. - A Taotai, a Tinguan and a Hsietai reside in the town. It is of importance owing to its
position on the Hang ho at a place where three big roads meet ( $\mathrm{Si}-\mathrm{an}$-fug, Tai-yuan-fu and Chen-chow-fu). The river can be crossed, however, at many other places. Higher upstream there are ferries at the following places (distances reckoned from Tong Kwang): Ta ching koan 80 li ; Lei sun 100 li ; Han chang 200 li ; Chit chan $220-230 \mathrm{li}$; Chat tu 250 li ; Bautö thu (?) li and probably in several other places. Tung Kwang is one of the places where the width of the road and with it the length of the wheel-axle changes. It is given in Chinese measurements as follows: W of Suchow 60 versh. (Chinese); Lanchow-Suchow 55; Tung Kwang - Lanchow 47-48; E of Tug Kwan in Shensi 47-48, but after 9 stations $\mathbf{5}^{\mathbf{0}}$; in Honan $3^{8}$ vershoks. - The commercial importance of Ting Kwang, however, is greater in the Customs conditions at present in force, as it stands on the boundary of three provinces and has a large likin station. The quantities of goods that pass through annually are stated to be as follows:


This list is, of course, incomplete and defective. The local trade of Tong Kwang does not seem to be large. Coal and salt are supplied to it from Shensi. - The population is said to amount to about $1,500 \mathrm{tja}$. - The fortress can scarcely be $2 / 3$ of a mile in length.

Immediately to the E of the town we crossed a small river flowing from the S , probably a branch of the river that flows through the town. Almost immediately afterwards the road $W a n_{i}$ leads in among hills of löss that rise, high and steep, on both sides of the road. We were hsien. able to convince ourselves by a glance that the Hwang ho had again become considerably broader and that the hills close to the town were of picturesque shape. Soon we passed the gate of the outer wall that enclosed part of the hills, but the sunken road continued for about 18 li , when we reached the Hang ho once more. The hills retreated slightly

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from the bank at this place and left room for a small tributary fowing from the S , T singlutien ho, 20 feet wide and not deep. Between the hills the dark-grey bulk of the mountains was visible in the S . Here the Hwang ho described a curve, open to the N , and flowed in a bed ${ }_{15-20}$ feet wide. The mountains of Shansi on the N bank were already of a considerable size, but rather distant. At 21 li we came to Wang ti cheng, a village of 300 houses, and were then again shut into a sunken road for 5 li . The road then debouched into open, undulating country, but there, too, it led along a hollow of such depth that we could see next to nothing. Further on the right there were soft hills with mountains beyond them. Trees that occasionally afforded a little shade, grew along the edges of the high ground on either side of the road. The heat was intense and the dust unbearable. At 30 li we crossed a small river, Shih ehr ho, on which there were some houses and trees. Just beyond the sunken road continued. At 40 li there was a larger village, P'antu cheng, with 300 houses in the valley of a small river of the same name. On the other side of it we entered another sunken road. At 50 li a last narrow gully with the village of Kaupe with 50 houses, broke the monotony of the sunken road for a few minutes.

We heaved a sigh of relief, when at last we abandoned the sunken road and reached Wang hsiang hsien. A small river, Tsingshui ho, runs into the Hwang ho between the town and its W suburb, the latter river flowing majestically in a very wide bed close to the town wall. I was told that the bed of the river was gradually shifting southward. The road was said to have run formerly along the present course of the river. Stone dams have been built at right angles to the river in order to protect the town from floods, or rather, to prevent the river from encroaching further on the bank, as has occurred at intervals of a few years. When the water rises an inch here, it is said to rise 5 at Kai-feng.

This place is insignificant, but a year or two ago some schools were established here, Tchung feng hsiao hsiao tang, Kao teng hsiao hsiao tang and Hsui fan hsiao tang. In the two last the pupils are paid 800 cash a month. The local population complains of the cost of the buildings and is reluctant to send its children there, as they are wanted for getting in the harvest and other work. - At a preliminary subscription of shares for constructing a railway I5,000 taels were subscribed. The shares are 5 dollars each and are repayable in 5 years. The railway scheme does not enjoy goodwill or confidence and reluctance is shown in subscribing for shares. - Orders were issued a year ago to reduce opium growing. The reduction, however, is far greater than prescribed, as the rural population, disturbed by proclamations and rumours, has considerably restricted its opium fields of its own accord. It is stated, however, that about $30 \%$ of the population smoke opium. The mandarin is not a smoker. - The town is supposed to have been founded during the reign of Chow, but was destroyed on several occasions. The population of the town is about 300 tja and of the district about 8,000 tja. The garrison consists of 1 pazung and $3-4$ men. The inns are very bad. I secured a comfortable room in a miao N of the town on the Hwang ho, where I took a bath in the presence of a large audience. The bottom of the river was muddy in places, but the current not very strong. The water was horribly dirty. Maize, cotton, wheat, peas, millet and a little tchumiza and mustard are grown. Average crop 6-7 fold. Agriculture is dependent on rainwater. - Between this place and Tung

Kwang you cross the Hang ho at the following places (distance from Pung Kwang): Wang ti Chian 20 li , P'antu chang 40 li and Wang hsiang hsien. A big arbah road leads eastward from here to the railway and a mountain road to Sheng-ngan in the $S$.

At Tong Kwang I parted from Lukanin and Hey, who started for Tai-yuan-fu through Shensi with my horses and all the equipment with the exception of a small case and some instruments. With a t'jao for myself and a light cart for the cook and interpreter I took the road to Chenchow, intending, after a short stay at Kai-feng-fu, to proceed thence by railway to Tai-yuan-fu.

E of Wang hsiang hsien the road leads up to a slight eminence, whence, strange to say, the view is open for a short time. The Hang ho flows here in a main branch of considerable width and another, further north, that is rather narrower. The whole sandy bed of the river is several miles in width. On the high ground there are patches of sand. After covering ${ }_{16} 6$-17 li we found ourselves once more in a sunken road that passed through the village of Tatzeying with 100 houses, situated 20 li from Wang hsien. Beyond it the sides of the sunken road are connected by a picturesque high stone gate that looks well against the steep walls of earth, being surrounded by shady trees. - After 22 li we passed the village of Kutho yong with a crenellated wall - 80 houses - in a slightly wider part of the sunken road, and 8 li beyond, the village of San-shih-li-pu with 50 houses. We began to feel the heat, although we had started at $4 \mathrm{a} . \mathrm{m}$. We met small processions of 4 or 5 mules drawing heavily laden arbahs that were only able to pass carts going in the opposite direction with the utmost difficulty. From time to time the monotony was relieved by wheel-barrows, also with heavy loads and in groups of 4 or 5 . The wheel is placed in the middle under the vehicle which is drawn by two men, one in front, the other behind, and a donkey harnessed by means of long ropes. Everything along the road, both pedestrians and horses, raised clouds of dust that could not disperse owing to the high walls of the road. At 40 li we crossed a river, $30-35$ feet wide, the Chutzu ho, immediately to the E of the village of Chutzu chang with $I_{5}$ houses. - Soon afterwards we were again in a sunken road that led us by a long and gentle ascent to a hill of löss, along which we travelled for 2 or 3 li and had such an open view to the north at times that we could see the Hang ho in the distance. The descent was rather steeper and slightly shorter. A couple of li before reaching Lingpao the sunken road debouched through a stone gate into the valley of the Tingling lien ho, about a mile and a half in width. In the N we caught a glimpse of the Hang ho. The mountain we had left behind was considerable, especially that part of it that lay $S$ of the road and continued without a visible break from the Hwang ho southward along the river Thing lung tien ho, the opposite bank of which, to the north, was fairly flat as far as the town. Quite close to it, i.e., about a mile from the Hang ho, there is a solitary hill of soft outline, crowned by a tower, and to the south it is continued by hills of logs that follow the course of the river.

We reached Lingpao after crossing the river which was $40-50$ feet in width. The distance was 60 li. The town is said to have been founded by Shin Hang Ti. The water, it is asserted, has never reached the town during floods. The population is 800 tia. -

Three years ago several schools were opened here, too, i tsung and i hsi fan hsiao tang. The two former categories are well frequented, but the latter only poorly. The pupils receive no pay for attending school.

Opium growing has been reduced by about $50 \%$, for fear of high taxes, so it is said. Shops, in which smoking was formerly permitted, are closed. Trade in opium still continues unhampered. - 150,000 taels have been subscribed preliminarily for constructing the railway. The merchants are decidedly in favour of its being built. - Along the distance of 60 li between Wang hsien and Lingpao there are said to be ferries across the Hwang ho at Tatzeying in and Tsu shang (2o li W of Lingpao). - Besides the large arbah road that goes through Lingpao, the latter is said to be connected by a mountain road with Nan-yang-fu in the valley of the Pei ho and by another mountain road with Haichow (said to lie on the highway) in Southern Shansi. Trade is local with the surrounding district, but is of some size. - The same plants are grown in the district as at Wang hsien, but more mustard, besides hemp. About $50 \%$ of the fields have artificial irrigation. - Close to the 5th gate of the town there is an old temple dedicated to Confucius, with large, venerable trees. It is supposed to be of the time of the Emperor T'ang. Another, about a li N of the town is also said to be very old and is falling into ruins. On one of the streets there is an unusually beautiful peilu of stone with large, carved figures. It belongs to the early part of the Ming dynasty. - A Hsien is resident in the town. The garrison consists of 1 pazung and 3 or 4 men.

May 22nd. We had scarcely left Lingpao, when we were again in a sunken road with a slight ascent. Shanchow. After 2 or 3 li the view opened for a short time, but walls of earth soon shut out the landscape again. The plain that was visible was slightly undulating. The mountains of Shansi in the N and those of Tsinshan in the S could be seen far off. - We passed Shih-li-pu, a little village of 3 houses, in an opening of the walls of earth after the road had dipped slightly for several li. A slight rise and fall indicated that the road had cut through a ridge. After 20 li we passed Chuhu cheng with 15 houses. A couple of li further on we were at last released for a considerable time from our prison. The Hwang ho was no longer visible, and judging by a large, steep rise in the $\mathbf{N}$ it must have been very distant. Our course was ENE. The plain was tilled. We passed Taying with 700 houses, only some of which were on the road, 25 li from Lingpao and Wei t'ang with 100 houses io li beyond. Close to the latter we came to very large hills on the right. Beyond the village the road again diverged from the hills. - 9 li further on we came to a huge crevice in the löss on the left of the road, and after crossing a small branch of it, we reached the village of Chaotuku with 30 houses. From this place the road was again confined between walls of earth that only came to an end about 3 li before Shanchow. This town lies 60 li from Lingpao and is reached after crossing two rivers and leaving behind a suburb situated between them, called Nan kuan. The second river is called Tsing ling tien and is of some size, though there was little water in it just now.

The road took us through the $S$ gate of the town, situated on the very edge of the bank and approached by a stone ascent. The Hwang ho was visible at a distance of $1-2$ li. The
hills, both on its N bank and S of the road, have picturesque outlines with perpendicular sides. The distance seemed shorter than during the last two days, although it was said to be the same. The local people say, however, that the 60 li of the two previous days should be reckoned as 80 li. - A Taotai and a Tchill chow are resident in the town. The population is estimated to be about $1,000 \mathrm{tja}$. The district is divided into 22 li , each li consisting of $18-20$ villages of $80-100$ houses. Thus the rural population should amount to not less than $3^{1-32,000}$ tja. In addition to the kinds of grain grown at Lingpao, red kunsjut and rice are cultivated here.

Several elementary schools, I tsung and i kao teng hsiao hsiao tang (a continuation of the tsung, but less extensive than the kao teng hsiao tang) are said to be well frequented. The pupils, who received pay for the first year, have now to provide books at their own expense. The population praises the schools. - In regard to opium there are proclamations. No more than 3 days ago it was announced that medicine for smokers would be distributed. The fields have not been restricted so far, though this is threatened. - The railway scheme has aroused interest. There has been no preliminary subscription, but a good many merchants are reported to be willing to subscribe for shares. A proclamation announced that to million taels were required for carrying out the scheme. - The town is supposed to have been founded during the time of the Emperor Chow. N of it there is a dilapidated temple, in the courtyard of which a withered tree stands, surrounded by bricks. This is also said to belong to the same remote period.

The $E$ wall and gate of Shanchow rise high above the surrounding country. It was still dark when, at $3 \mathrm{a} . \mathrm{m}$., we roused the watchman and were allowed to pass out. A sunken road started almost immediately to the $\mathbf{E}$ of the town. It led us, after 5 and 12 li , past the villages of Wai yu ku and Suichia chu, both small. Some time before the latter the road debouched into a plain with an open view, though the faint light did not allow us to enjoy it. During the rest of the day we were only imprisoned in a sunken road from time to time and always only for a short time. There were many villages along the road. Excepting Chang maochen with 350 and Hsia shui with $\mathrm{I}-200$ houses, 55 and 75 li respectively from Shanchow, they were all very small. The landscape became more and more mountainous and the road grew more uneven, though it does not present any difficulty except during rain, when this yellow soft ground is heavy and difficult even in the flattest places. In several places there were deep and steep crevices next to the road. After about 50 li there was a clearly marked group of mountains a mile or two to the left of the road. On the right there was a chain of hills that gradually approached the road. The ground dipped towards it and formed a long and gradual valley at its foot. - 5 lifurther on the road took us down a hill into a wooded open valley which we followed for $10-15$ li.

The road curved more and more, the main direction being E. Larger hills now appeared in front of us. We crossed a long ridge-like hill at the village of Chiatilin, immediately $\mathbf{E}$ of which was the steepest hill of the day, 7 li in length. ( 692.1 and 706.9 according to the aneroid No. r). After climbing for 10 li, though not so steeply owing to several curves, we reached the village of Kwang ying tang after covering roo li.


Part of the temples in the grottoes at Lung meng near Honan-fu.

There was lively traffic on the road, long strings of arbahs, small caravans, pedestrians and horsemen with and without loads in great numbers. The usual rough body of the arbah is placed on a couple of low, heavily iron-rimmed wheels, which makes them look like a misshapen, very low toy cart. Now and then you meet a box rolling along on 4 small discs, a horribly ugly and clumsy contraption.

Kwang ying tang has 250 houses. It goes back to the Ming dynasty. Wheat, various kinds of peas, barley, red kunsjut, mustard, millet and tchumiza are grown. Average crop 5-6 fold. The rainfall is said to be inadequate. - A couple of elementary schools have been opened and are greatly frequented by the inhabitants. - The building of the railway is awaited impatiently. Here it is stated that the population will only advance the necessary funds to the Government in the form of a loan, though 1,250 dollars have been subscribed. - 2 pyn fandziun from Shanchow are stationed here. - A mountain road leads to Siuchow ( Wu chow).

May 24th. We had a long journey to-day, but much less monotonous than during the last few Tie mengeheng days. There were no sunken roads and we had an extensive view on either side for almost village. the whole way. The mountains had retreated, but were visible in the distance. The ground was uneven with large, ridge-like hills sloping gently down to slight valleys. The land was cultivated everywhere, the villages thickly dotted about and shady. Here and there groves of trees appeared. Traffic on the road was very lively. In the afternoon the wind rose and after a couple of hours' rain the dust was laid.

Most of the villages were small. Among the larger ones we passed Hsi yin ho with 100 houses at 15 li and Ying ho cheng with 300 at 20 li . After covering 45 li we reached the town of Nyen chi hsien, of about 1,000 houses. It lies on a small river, the Chen ho.


At a distance of 5,13 and 21 li beyond, the road took us across the Yuli ho, Tung hsiao ho and Shih ho, 3 small rivers, the last of which contained no water at the moment, with very stony beds. From Nyen chi onwards the hills of löss were again pronounced in the S at a distance of a few miles. We reached our goal for the day after travelling 105 li . This was a large village of $350-450$ houses, belonging to Hing-an hsien and built during the T'ang dynasty. Here there were 6 or 7 Dungan families. - The same plants are grown as at Kwang yin miao with the addition of cotton and white kunsjut. About $50 \%$ of the fields are irrigated. Average crop 20 fold and $8-9$ fold in those places where only rainwater is available. - The inhabitants were keen to see the railway built and were willing to subscribe. The construction was not expected to be begun for a year. A much frequented elementary school had been opened. - Opium growing was to cease entirely within 3 years. This year it has already been reduced by one-third. The proportion of smokers is said not to be large.

I pyn matui of the Honan-fu garrison was quartered here (i officer and 10 men). An arbah road leads southward to I-yang, another to Yu ning. In general, the land is crossed by arbah roads in all directions.

In 5 li we crossed a small river by a solid stone bridge of ancient construction different May $26 t$ from the last ones. The hills in the $S$ were $1 / 3-2 / 3$ of a mile off. In the $N$ we caught Honan- $f$


Inside the temples in the grottoes at Lung meng.
a glimpse of the river now and then, winding along the valley not very far from the road. Far to the north of it mountains were visible. - 22 li from our starting point we crossed another river, 35 feet wide, with only a little water. Its $\mathbf{E}$ bank was steep. The mountains had now drawn much closer together. Between them a single mountain stood in the valley, crowned with a tower, by which we set our course. Soon after, we passed through the capital of the district, Sinanhsien, a small place with a population of about goo tia. Just beyond it we crossed the Mi ho, a small river. After falling slightly for a time the road led us over a slight, long rise. Soon after, about in li from the town, there was another small river. The mountains in the $S$ were now quite close to the road, the northern ones being not more than $2 / 3$ of a mile off. For a time they ran at about the same distance from each other, but then they again began to retreat.

The road now continued over level ground. We crossed one more river, $30-35$ feet wide, so li before reaching a village that bears its name, Siniho. After covering oo li we came to Honan-fu. Both chains of mountains could be seen faintly at a very appreciable distance. The following villages lie at the distances stated from Tie meng chang: 5 li Yulipu with 7 houses, 10 li Hs chung 80 houses, 55 li Keichang 100 houses, 8 li Tie san 200 houses, 30 li Sinan-hsien 800 houses, 38 li Palisan 7 houses, 12 li Ching lang shuk'r 5 houses, Young chang 15 houses, 20 li Ehr-shih-li-pu 10 houses, 30 li Sui then tie roo houses, 40 li Wang slang ho, 45 Kushui chang 1,000 houses, Chihli ho 15 houses.


Early this morning I made a trip to a mountain called "Lung meng ( $=$ the dragon's gate)", 25 li S of the town. The story goes that a child heard a noise in the mountain. In its fright it told its mother who told it to knock on the side of the mountain and call to the author of the noise to come out. The child did so and the mountain divided and its dragon appeared (the Chinese believe that there is a dragon in every mountain range). In any case the mountain is now divided by a broad gorge, at the bottom of which an arm of the Luo ho flows. A ferry connects the two banks. The mountains are not high, but beautiful, parts being steep and the denuded rock appearing everywhere. Small streams rise from some springs and their clear water pours in tiny cascades down the steep rock. Two pretty, diminutive Chinese temples stand at the northern end of the gorge, one a little way up the slope of the E mountain, the other at the foot of the W mountains. The latter looks very pretty with some miniature cascades gushing out of the stone walls of the terrace. In connection with the visit of the Empress during her flight the place was tidied up and made very comfortable. The sides of the mountains contain numerous grottoes of different sizes on either side of the river, from niches so small thatt hey can just hold a Buddha image to arches $12-14 \mathrm{~m}$ long and $7-8 \mathrm{~m}$ wide. They were all of the same shape as the grotto cells N of Qara Khoja - an arch cut short at the front and back by a smooth wall. The doors were in many cases small and rectangular. Opposite them a large Buddha image was enthroned, in some cases, with a couple of
others, also of considerable size, on either side. In the side walls there were many niches with images, either standing or sitting. Between them there were smaller images and various ornaments carved out on a level with the surface of the rock. The side walls of a couple of grottoes were decorated with very small images reproduced by the hundred. A large ledge of the rock was decorated with a huge sitting image with several giants standing on either side along the side of the mountain. An immense Buddha was also enthroned on another ledge. In one of the bigger arches one of these large Chinese idols with side figures of painted clay had been put up in front of the back wall. It was all very similar to the arches and remains of paintings seen in the Turfan district, but here every image and every ornament was carved in the wall of rock - often very artistically. The work done is incredible. In one grotto there were inscriptions in Chinese. Some of the arches were blackened by the soot from fires and many of the statues had lost their heads or a limb. Primitive stairs, worn smooth, and handles in the side of the rock indicated that at some time in the dim past this place must have been a greatly frequented shrine for pilgrims. This is said not to be the case any longer.

On the way back I paid a short visit to Kwangti chuang, a famous temple, where the head of the god of war is supposed to be buried. His body lies in the province of Shansi. The temple is unusually clean and beautiful. It consists of three parallel main buildings standing behind each other and a couple of smaller ones in front and in its innermost part a stone wall that encloses the place where the head is supposed to be buried. There are a couple of "peilu", many monuments and a couple of stone lions in front of the wall. A broad path, paved with stone slabs and adorned with beautifully carved stone balustrades leads from the entrance up to the main temple. The image of the god of war is enthroned there in colossal size with two enormous, wildly grinning heyduks in front of it. A couple of white, quadrangular, stove-like urns of white marble for burning incense are placed in front of the next temple. The image sitting in this temple is of rather smaller size, but has four terrifying heyduks. In the third temple the god sits in a richly sculptured palanquin, holding a sword in his outstretched hands. The whole group of buildings with several side-buildings and many old cedars is enclosed by a wall. A celebrated holy mountain, Sian shan, with many temples lies about 160 li to the $E$ of the town.

Honan-fu, formerly called »Lo yang tie», is said to have been founded during the Chow dynasty, when it was the capital of the empire. It is said to have consisted of three fortresses that enclosed the space from the present town to the other bank of the river. 72 bridges led across the Luo ho. Ruins of old bridges, built like the one we crossed yesterday, are still visible on its bank. The so-called imperial town is supposed to have stood on the site of the present town. The missionaries told me that in digging a well remains of buildings and human bones had been found at a depth of 12 feet. - There is a legend that the capital was moved, because it was discovered that the site was not worthy to be the residence of a powerful imperial house, for there are hills of löss to the N , while to the S there are granite mountains, and this was interpreted as indicating that the Emperor had but a soft and weak support, while in front of him stood a strong, impenetrable mountain.

In the town I met, quite unexpectedly, a numerous Swedish colony, this time Swedes

who had immigrated direct from Sweden. .. The population of the district is reported to be inimical to Europeans and to everything that is foreign, Mandarins and educated Chinese particularly ill-disposed, those who had visited Japan being the worst. This secms to be a fact and was confirmed throughout my journcy by Europeans resident in China. - Schools and other reforms are entirely dependent on the local mandarins, the one often doing away with what another had introduced. Dilapidated sentinel's boxes and overturned lamp-posts in some of the towns I passed through proved that opposition to reforms was carried to such lengths that the street lighting and police that had already been introduced were done away with.

In regard to schools, 1 tsung hsiao tang and 1 kao teng hsiao hsiao tang (the same curriculum as the former, but without English) had been opened, each with 3 masters and 7-8 pupils. Besides, there are two schools that specialise in teaching English and train future telegraph clerks. These pay 36 taels a year. - Opium growing has actually been reduced by $1 / 10$. Many peasants have reduced it still further of their own accord. Shops, in which smoking was indulged in formerly, have been closed. A tax of 7 fyn per liang of opium is levied. - A Fu and Luo yang hsien reside in the town. The population of the district is said to be about 50,000 tja. Wheat, barley, peas, mustard, red and white kunsjut, rice, opium, gaolyan, maize, silk and a lot of cotton are grown. Average crop io-ıI fold.

May 27th. The character of the road eastward is the same - open ground with numerous villages Yenshihhsien. and a grove of trees here and there. The road often leads along the surface of the ground, but occasionally it cuts so deep into the löss that nothing is seen of the landscape. On the right we caught a glimpse of the river from time to time, its shining surface shimmering in the sunshine among trees and yellow and green fields. The wheat was ripe and harvesting was in full swing. Every man, woman and half-grown child was out in the fields. The women, kneeling, cut the stalks with a sickle. Quite close to them it is threshed with a stone cylinder, made to revolve by a pair of trotting donkeys or mules on a level bit of ground, tramped hard. The straw is carted in large, circular baskets with rope netting, placed on a wheel, which is guided in the required direction by a curved handle. Everything is close at hand, buildings, fields, threshing ground, ricks etc.

We passed the following villages, reckoning from Honan-fu: 5 li Tanchia wang 100 houses, 10 li Shihi-pu 100 houses, 15 li Pankatien 50 houses, 20 li Shihtsu 30 houses, 25 li Peima sui 15 houses (a fairly large miao with a high old, column-like tower is seen near it), 40 li Ehrting-pu 20 houses, 45 li Miao uychung 17 houses, 50 li Ehr-shih-li-pu 2 houses, 55 li Tsu chuang roo houses. - Here we came to the sandy bank of the Luo ho, which we followed for a time. 60 li H sintai cheng 200 and 70 li Yenshih hsien after traversing a sunken road of several li.

I spent a very pleasant cvening in the house of an engineer, Henri Squilbin, in the little, old town. He was in charge of the work on one of the sections of the new railway and had spent just over a year in this place with his wife, both of them Belgian. - The golden age for foreign railway builders seems to be over in China. At the head of every completed railway or line under construction there is now a Chinese with a large or small staff of his own, composed of natives. Even when a railway is being built by foreigners with their own capital, no order can be carried out, nor anything be done in general without the approval of the Chinese director. Obviously such subordination of specialists to Chinese, who have often no idea of technical training, causes much friction and discord. Whenever Chinese undertake to administer a line or manage its construction by themselves, matters are said to be still worse, at any rate for the present. Chinese are appointed as engineers and chiefs of sections, though often they may have been employed merely as interpreters in connection with some railway construction by foreigners. These men usually copy the plans of the work they have seen being carried out very carefully and make use of them, when they think the circumstances are more or less similar, but calculations are ignored entirely. To these purely technical difficulties the absence of capital must be added. Peiping seems unable to provide the necessary funds, the population, sucked dry by the mandarins, creates disturbances if taxes are raised, and the wealthy people refuse to subscribe to Government undertakings or demand guarantees that the Government seems unable to give. Nevertheless, their motto is: no foreign undertakings and no foreign capital. Lines that are still being exploited by foreigners according to contract, are to be bought up and new lines are to be built by Chinese. The technical problem can easily be solved by appointing foreign engineers in Chinese service. The Chinese are not entirely opposed to this and it should not be difficult to find suitable foreigners, but the financial side presents considerably greater difficulty.

According to the contract with the Franco-Belgian company that built the railway to Honan-fu, the line over the short distance I travelled recently from Tung Kwang ting to Honan-fu is to be built by Chinese. By the imperial road the distance is about $4 \mathbf{8}_{5}$ li and the Chinese estimate the cost at an average of 10,000 taels per li, or in round figures 5 million taels. However, about 270 li are very mountainous, at any rate as mountainous as the neighbourhood of Kung hsien, where 1 km is said to have cost 300,000 francs ( 50,000 taels per li). The cost of constructing the railway will probably amount 10 15-20 million taels, a sum which it seems scarcely possible for the provincial administration to provide, as so far it has not succeeded in collecting, by preliminary subscription, the amount it estimates as the minimum required.

Yenshih hsien is said to have a population of about $30,0001 \mathrm{ja}$, the town $800-1,000$. The same plants are grown as at Honan-fu, except rice. Average crop to- 12 fold. - In addition to elementary schools the town possesses i tsung hsiao tang and kao teng hsiao hsiao tang. No foreign languages are taught in either. - The sale of opium is forbidden altogether. The mandarin issued orders that opium growing was to be reduced by $1 / 10$, but the people have restricted it considerably more of their own accord.

A sunken road starts immediately to the E of the town and in general the 120 li we May 28 th covered to-day were done, with short intervals, between more or less high walls of earth. Szeshuih We passed the villages of Sungchia wang with 1,000 houses and Tsi chia chuang with 100 at a distance of 15 and 30 li from Yenshih. Immediately beyond we reached the Luo ho, which flowed between hills of löss. Tombs of the Sung dynasty are said to lie E of Yenshih, but I did not see any, either because of the darkness at 3-4 a.m. or on account of the walls of earth. - We crossed the river on small barges at the village of Hei shih kwang, which also possesses $\mathrm{I}, 000$ houses. Although only a few arbahs had collected on the bank, there was great disorder. The width of the river is about 90 yards and its depth $11 / 2-2 \mathrm{~m}$. A fine railway bridge with 8 stone pillars is being built just below. A sunken road begins on the other side of the bridge and seems unending. Here and there some tables are spread in front of a hollow in the wall of earth and refreshments can be obtained in the shade of a straw mat.

We reached Kung hsien after riding 60 li . The little town looked as though it had lately experienced something like the Dungan revolt. E of it we came to the Luo ho again, the river making a sharp bend here. Some junks were sailing on it in a fresh breeze. Their square sails, of grey cloth with a broad blue band stiffened by numerous parallel ribs, have rather a medieval appearance.

I had hoped to find a freight train at Kung hsien and proceed by it to Chen-chow. After hunting about for some time I found a German, who was in charge of the work there, and was told that no train had arrived. An incredibly high bridge leads across a cleft in the hill there. The excavations in the löss in connection with the railway line reveal an exceptionally regular line. It could not have been cut more evenly in a block of butter. On the other side of Kung hsien the road crosses a huge ridge of löss. We reached the highest point, Feng tsui cheng, a village of 7 houses, after climbing without a break for 15 li , mostly along a narrow sunken road.

The descent started immediately along the same monotonous sunken road. When we came up to the surface for a short time, we saw a great many fissures that cut up the hill in every imaginable direction. The landscape, with many bare hills of löss falling in terraces, was very similar to that I had seen in Southern Kan Su. 4.5 li from the crest of the hill we came to Szeshui hsien after travelling for a time along a level valley. - The town is, if possible, in even worse condition than Kung hsien. The destruction is said to have been wrought by prolonged, heavy rains, that caused inundations 42 years ago and washed away a great many houses. Several thousand people perished at that time.

May 2gth. The 1 ro li we covered to-day were also mostly between walls of löss, but we Chen-chow. did not cut through any considerable hills. It was only 10-15 li before Chen-chow that the road finally emerged from the hills into an open plain with many groves of trees. Soon after, to my great joy, I heard the melodious whistle of a railway engine and we soon reached the railway and the extensive buildings belonging to its management. Rickety rickshaws, soldiers in khaki, Chinese speaking broken French, others dressed more or less in European clothes, indicated that we had reached the civilised zone of China.

The villages are as follows: Ehr-shih-li-pu 100 houses, 30 li San-shih-li-pu 60 houses, 40 li Yeng yang hsien, 60 li Ehr-shih-li-pu or Yulung cheng 1 , ooo houses, 70 li San-shih-li-pu ${ }_{15}$ houses, 80 li Hsu shui cheng, 90 li Ehr-shih-li-ho, 95 li Sankua miao 30 houses and ıı li Chen-chow.

In regard to schools itsung and 5 hsiao hsiao tang and a school for training the railway staff have been opened. The latter is called "lung kung shang hsiao tang" and has about 120 pupils. Three Frenchmen have been appointed as masters. There is no technical instruction. - Some Japanese women are engaged and a few Japanese men are also seen.

I spent a far from pleasant night. Behind the thin wall, next to which my bed had been placed, there was an indescribable noise, a regular caterwauling performed by a woman with an exceptionally unpleasant voice and her guests, 2 or 3 Chinese railwaymen. My first request, that they should move into another room, brought the assurance that they would only sing a couple of songs and then stop. When I renewed my request a couple of hours later, they lost their tempers and replied that they themselves were "chiefs" and would now sing seven times worse! A terrible caterwauling arose and went on till about I o'clock in the morning. This incident is said to be typical of the frequently provocative treatment of Europeans by the Chinese, whose duties bring them into daily contact with them. - Chen-chow was visited recently by a commission consisting of about 20 mandarins, despatched to select a site for building an arsenal.
june ${ }^{3}$ rd. Kai-feng-fu.

On May 3oth, with a feeling of great contentment, I entered a comfortable railway carriage which carried me in a couple of hours to Kai-feng-fu, the capital of the province of Honan. The line goes over a flat plain. Sand dunes and large expanses of sand indicate the proximity of the Hwang ho. Shortly before reaching the town we crossed the remains of an ancient dam which, in the form of a wall of sand, had offered its opposition to the mighty waters of the river in bygone days. - A large part of this distance from Kai-feng-fu
to Chen-chow had to be built twice over, as the embankment was washed away during the rainy period. This increased the cost of construction very considerably. Of the $\mathbf{g o}$ li of the line no more than one-third passes through very uneven hilly country and yet the whole construction has cost about 180,000 taels per km . There are said to be no less than 10 tunnels between Kung hsien and Szeshui hsien, all dug in the soft earth and supported by masonry, i.e., easily destroyed. I was told that there were trenches as much as 50 m in depth. The bridge over the Luo ho and another immediately to the E of Sung hsien are vulnerable points that swallowed up a lot of money. Some kilometres on this section cost as much as 300,000 taels. - The railway is a single-track line of the usual Chinese gauge of 1.44 m . There are points only at the stations.

There is a lively scene when a train arrives at a Chinese railway station. Men from the different inns crowd round the doors and windows of the carriages, jostling each other and shouting. By thrusting out a little white flag bearing the name of the inn in black letters and swinging it round the traveller's head, each one tries to induce him to select the inn he represents. Outside the station there are masses of carts and rickshaws, the drivers and runners starting to shout and fight when you approach them with your luggage. A long line of soldiers with fixed bayonets present arms at the order of an officer or non-commissioned officer and confine themselves to impressing the crowd by their more or less picturesque exterior, for they remain passive spectators of the struggle proceeding between the men from the inns, porters, travellers and a crowd of idlers. There is a great deal of luggage and it is packed in such a way that typical Russian travellers with their bolsterlike pillows, tea-urns etc.. would seem quite business-like in comparison with the Chinese. A woman descends from a third class carriage with innumerable bundles and boxes of every conceivable kind. A mandarin walks solemnly out of a first class carriage or his wife and daughters, painted in the same bright colours as popular Chinese prints, are conducted to palanquins taken out of the luggage-van. They are followed by an innumerable retinue of servants, male and female, each carrying some small parcel.

A good macadam road leads up to the town, situated about a mile from the station. Small impanjes, with white houses enclosed by grey walls of clay, stand on either side. More of them are seen further E. Each houses I in. The gate is guarded by 2 men and at the four corners of the little fortress there are 4 sentinels, who keep a watchful eye on all who come and go. Outsiders are forbidden to enter an impanj. The careful watch is probably due, however, to the fear of desertion. - Further W, shortly before reaching the gate of the town, there are a couple of stone houses of European architecture. These are a Protestant missionary station and a hospital run by 3 missionary doctors, one of whom, Mr Guiness, is married to a Swedish lady from Stockholm.

The town occupies a very large and unusually sparsely populated area. The main streets are lively and have a number of well stocked shops. There is a distinctly larger supply of Japanese and European goods here than at $\mathrm{Si}-\mathrm{an}-\mathrm{fu}$. The streets are of macadam. It is pleasant to take a walk among passing rickshaws and crowds of Chinese in white or light colours with raised fans or sunshades of both Chinese and European shape. But only a short distance to the S or N you find yourself among stinking narrow lanes that usually


The "glas pagodan al Kui-/eng-fu.
end in large, uninhabited spaces. On one of these large spaces in the N part of the town an old temple, said to have been established in the former palace of the Sung dynasty, stands effectively on a high, stone terrace. It is approached by a road between two stinking ponds, in the green, slimy water of which long rows of women rinse their washing. A broad stone stairway leads to the steep terrace of the 川lung ting" ( $=-$ dragon's hall). The principal god of the temple is seated on a huge block of stone, artistically carved with dragons and other heraldic ornaments in bas relief. The emperors of the Sung dynasty are said to have used it as a throne.

Not very far from it there is an old Buddhist temple further E, called wthe glass pagoda" owing to a very high tower of many storeys built of glazed bricks. It is said to have been built by the Emperor Tai chung of the T'ang dynasty. The temple buildings, lying quite close to the tower, are in ruins as a consequence, it is said, of an attempt at looting a few dozen years ago. In the middle of one of the buildings the remains of 3 large seated images of clay can be seen, while the corners and side walls are occupied by numerous smaller ones, also seated. There are others above them in the form of glazed tiles let into the wall. A tall, roughly cast image of copper (4 times as large as life) is situated in another building and a big church bell, richly ornamented in bas relief, lies in the plain outside, half buried in the ground. - Of the other sights the examination hall ("kung yen»), now abandoned, is worth mentioning. There is accomodation for no less than 10,000 candidates in its innu-
hang len at Kai-fens-/u, examination halls for 10, om m pupils.

merable long, shed-like buildings, ruming parallel to cach other. -- The so-called "puo ta suin, an old tower of an unusual shape, stands $2 / 3-1$ mile $S$ of the town. Each brick (some glazed) is pressed into a form with an image in the middle, so that the manifold sides of the tower present hundreds of small images. This tower and the glass pagoda only possess pure Buddhist figures and drawings.

The original population of the town is said to be Mohammedan. The Chinese immigrated subsequently in the course of centuries as merchants, officials ete. The Chinese population preponderates at present. About 70,000 of the 200,000 inhabitants are said to be Mohammedan. They have not intermarried with the Chinese population. You frequently meet Chinese with typical Turkish heads - aquiline nose, beautiful almond eyes with an uncovered caruncle, well-trimmed beard etc. The mosques are built in the same Chinese style as at Ili, Hochow and $\mathrm{Si}-\mathrm{an}-\mathrm{fu}$. In one of them I saw a monument with an Arabic inscription which was said to belong to the time of the T"ang dynasty. Here, too, I was told that they had immigrated during that dynasty and that they were Turks from Istanbul. The Mohammedans of Honan were not concerned in the Dungan revolt and have not been persecuted by the Chinese authorities. On the contrary, the authorities rather favour them to some extent. In schools, for instance, they are not forced to kneel in front of Confucius - a privilege denied to Christian children. There were only a few Mohammedans in the towns I passed through, but I was told that in a couple of fairly large places further south the inhabitants were preponderantly Mohammedan. The missionaries said that their number could safely be placed at about 1 million for the whole province, a figure that seems very high. - Religious instruction is given in Arabic and many people are said to speak the language, especially those who have made the pilgrimage to Mecca and are held in great respect.


A grouf, of Mohammedan women at Kai-jeng-ful.
The Jewish population is very small and is said to number not more than about 55 tja , mostly poor people engaged in some small business. I visited Jewish families with 3 different Chinese in order to take some photographs, but I did not see a single full-blooded Jew. All of them had some Chinese blood in their veins, and I saw no typical Jewish heads. From this I conclude that they have really been assimilated by the Chinese population. -- The celebrated Jewish stones stand in a stinking place among "heaps of refusen, - not to call them by their right name.

The Christian population of Honan numbers about ${ }^{15}, 000$ Roman Catholics and 2,000 Protestants

Several reforms have already been introduced. - The Pien-lo railway should be completed and start running in about 6 months for a distance of about 190 km . It is to be extended at once by the provincial authorities by means of funds subscribed by mandarins and the local inhabitants. It seems to be uncertain whether this will come off or, as the latest rumour from Peiping states, the same Franco-Belgian company will be entrusted with its construction. At the same time it may be considered an undoubted fact that the scheme will be carried out in one way or another. The building of the line from Honan-fu to Tung Kwang will, however, take about 3 years. If the work is attacked with great energy and no time is wasted in discussions, the line cannot be laid in less than 2 years (the Pien-lo igo km took over 3 years). If the Si-an-fu - Tung Kwang line is built at the

A Chinese Jew at Kai-feng-fu.

same time, as is intended, Si -an-fu may really be connected in 19 I 2 with the railway system of the empire and the question of prolonging the line via Lanchow to Sinkiang can scarcely come to the fore before that. If it is then constructed from one end ( $\mathrm{Si}-\mathrm{an}-\mathrm{fu}$ ), it cannot be calculated that more than about 200 km will be built annually, or in other words, its continuation to Ili and the Russian frontier will take about 15 years. It is problematical, however, whether such energy will actually be displayed as to provide Si-an-fu with a railway within 3 years. It would be necessary to convey the rails in barges to the railhead of the Tung Kwang - $\mathrm{Si}-\mathrm{an}-\mathrm{fu}$ section, which should be feasible, at any rate from Szeshui hsien. Above all, however, the necessary funds must be available and no time must be wasted. As regards funds, it is stated that 5 million taels have already been collected, and that Yuan Shih-k'ai's son has been appointed manager of the Honan-fu-Tung Kwang section. If the same rumour is to be credited, I million of this sum is already missing. The question is also being seriously debated with regard to continuing the line from Kai-feng eastward until its junction with a line that is being planned southward from Tsinanfu. - According to Marting, a line is under construction from Nanking to Kai-feng.

Nothing seems to have been done to develop the industry and mines of the district. Large deposits of coal are said to have been discovered near the Pien-lo railway and their mining, which is important for the railway, to have been started. The Chinese manager
of the railway and some of the senior mandarins of the province have formed a company that has acquired the coal mines and begun to work them rationally.

The military forces have already been organised on a different footing from those in the provinces I have visited hitherto. The tchyping troops have been reduced to such an extent that, although they still exist on paper, they may be regarded as disbanded in actual fact. A so-called yying* does not consist of more than 3 or 4 men . There are some exceptions, indeed, in places, where there are no new troops and posts have to be maintained. However, side by side with the new ludziun troops other organisations of troops have been formed that replace the tchyping garrisons and are at the same time more closely allied to the ludziun. The armed forces of the province thus consist of ludziun, fandziun u djyng dziun and police troops. Owing to the presence of the last category of troops, the ludziun brigade is really quite mobile and should be available for use against foreign enemies independently of the interior state of the country.

The following ludziun troops are stationed at Kai-feng-fu:

Infantry .... 47 th regiment armed with Mausers with 10 cartridges 88


Artillery of the $15^{\text {th }}$ " (in one ying 4 mountain guns for 2 horses and 8 field guns, all 2 " with armoured screens - stated to be manufactured in Kaifeng. Same rifle as infantry. Swords in metal scabbards.)
Sappers of the 15 th ying 2 tui, armed the same as infantry.
Manchurians 1 in of 4 tui of about 50 men. Altogether stated to be 350 men (according to Perera 504). Armed like infantry.
There are the following "fandziun" troops in the province:

Nanyang djentai 3 ying putui, 2 ying matui
Hwaitien " 4 " " I " "

Kweiteh " 2 " " I " "

The different ying are stationed in different places of the Djentai district besides being scattered at a great num-
ber of posts.

Yu cheng dziun troops (for the last 3 years):
Suchow tungling -4 ying putui, i ying matui
(detachments called tsoă dziun) ........ The different troops are probably also
Wei whei fu tungling-4 ying putui, i ying stationed in different places, from which
matui (ju dziun) .. ..................... posts are occupied. Details unavailable.

There are police troops now in most of the towns. In Kai-feng-fu 1 ying of 600 men and 5 officers of police has been formed. This is distributed at police stations of 1 officer and 120 men each, armed with Hotchkiss. Infantry drill is done every other day. Guard duty 3 hours a day. Pay 4 taels monthly and free quarters. - Examination in Chinese for cnrolment. Subordinated to a Njetai.

Gymmastics at the military school at Kai-feng-fu.


The fandziun and $u$ djyng dziun troops may be estimated at foo men in cach ying of putui and 250 men in each ying of matui. - Arms: Mannlicher with 5 cartridges. Hotchkiss with 10 (?) and Mauser with 10 and I cartridge. - When drill is performed, it is carried out in the European style. Owing to the troops being split up into small posts, there is frequently no drill at all and in any case it is deficient.

The ludziun are trained pedantically. They drill daily from 6 to $7--8 \mathrm{a} . \mathrm{m}$. and 4.30 to 6 p.m. - The infantry marches, changes formation and handles its rifles with faultless precision. There is strict attention in the ranks, never a loud remark, still less any foul language. - The artillery drill with their guns, 4 men to a mountain gun and 6 men to a field gun. The men are untiring in running, carrying ammunition, loading, squatting behind the armoured screen and firing. In between, the horses are harnessed to the guns or else the guns are laden on to 4 horses each. This is done rather slowly, perhaps. Changes of formation are carried out quickly and with precision. The horses (1 or 2 to a mountain gun, 4 to a field gun) are small, but with few exceptions broad, deep-chested, with strong backs and well developed legs. They are bought in Mongolia at about $4^{0}$ taels each. A ying has 266 horses, which are in the charge of a junior officer. They are groomed and fed by some hired mafu, not in uniform. - I did not see the sappers do any drill except infantry drill, performed with the usual precision. - The cavalry are said to do mounted drill,


Gymnastics at the military sehool at Kai-jeng-fir.
but I had no opportunity of watching it. The horses and equipment belong to the State. The pay is the same as in Shensi.

Taclical exercises in the field and small manoeuvres are said to be performed frequently in the autumn after harvesting. Target practice from the roth to the $2 n d$ month daily. I shao of each ying per day. Each man fires 5 shots. I was told that no firing practice was done with guns.

The men in general are of medium height and poorly developed. The uniforms are similar to those I described at Si -an-fu. Officers always wear khaki. During drill knapsacks and coats are often carried on the men's backs.

I saw the Manchurian ying doing infantry drill. I was told, however, that it was a cavalry ying. There are no horses in the impanj, but they are said to be kept among the Manchurian population. The total Manchurian population amounts to 10 tchi, of which 2 are Mongolian.

The barracks are S and SSE of the town wall at a distance of $1 / 3-2 / 3$ of a mile. Each ying has its own barracks, enclosed by a crenellated wall of clay and divided into numerous small buildings. Every pyn has its own house, in which the non-commissioned officers occupy a small room in the middle and the men are evenly divided in the two rooms at the sides. There is a small hospital ward for $12-15$ men in each ying. Everything is clean and well cared for.


The arsenal is situated quite close to the railway line to the SW of the town. 70 workmen and 40 apprentices are employed. Most of the former have been employed in arsenals in the South. For 40 and 20 cents respectively they labour daily from $6 \mathrm{a} . \mathrm{m}$. to midnight with two hours' rest at 12 and at 6 . Engines drive 3 lathes for boring rifle barrels. There are 7 for turning them, 15 other turning lathes and 12 smaller lathes of various kinds (including machinery for manufacturing cartridges). - The steel is supplied mostly from Nanking. - About 2 million cartridges, $300-350$ rifles of the Mauser type for 5 cartridges and 10 guns ( 57 and 70 ? $\mathrm{m} / \mathrm{m}$ ) are manufactured annually. - At present the manufacture of rifles and guns has given way to repairs and the manufacture of cartridges. - It is stated that more powerful new machinery is to be installed. A third tall chimney is being built just now. - A large part, if not all the troops of the province, are armed with rifles and guns made by the arsenal. - Particulars as to the supplies of arms are not available. - The powder store is close to the so-called glass pagoda. - The work seemed to have been done carefully, but the rifles were rough and the wooden parts badly finished. In trials with cartridges the bullet penetrated 26 boards of just under an inch in breadth each.

There are many schools in Kai-feng-fu and they seem to be well frequented. Those I visited were not so clean and well cared for as at $\mathrm{Si}-\mathrm{an}-\mathrm{fu}$, but the teaching staff appeared to be good. In what is called the normal school there is a Japanese who teaches medicine. Another Japanese is a master in another of the town schools, but in addition a large pro-
portion of the Chinese masters have studied in Japan. - The following schools have been opened:

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Kao teng hsio tang .......................... I
Si fan hsio tang, I year's course, ........... I
Juti si fan hsio tang, 5 years'course .......... I
Chutzu si fan hsio tang, 2 years' course .. I 200 pupils (a large part graduates).
    Approximately the same course as the
                                    kao teng hsio tang with special study
                                    of law
Fa cheng hsio tang ........................ I
Liang teng hsiao hsio tang (children from 8 to
    14-15) .................................. 8
Chuteng hsio tang (continuation of ming yang
    hsio tang) .................................. 16
Ming yang hsio tang (school for small children) II
Pansiu hsio tang ............................. 10 (half-day schools)
Ipr hsio si fan hsio tang .................... I (evening school)
Nu hsio tang ............................ I (50 pupils from 8 to I8, including some
    mandarins' wives)
Hsun ting hsio tang ......................... I (police school)
Ludziun hsio tang ....................... I (of the same class as at Urumchi,
                                Lanchow and Si-an-fu. 250 pupils.)
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In the whole province of Honan $80-90 \mathrm{Si}$ fan hsio tang schools are said to have been opened (for training masters for the Ming yang).

Although the edict regarding the abolition of opium smoking has not been carried out to the letter, it cannot be denied that in this sphere, too, a good deal has been done already. The opium fields of the province have been reduced officially in area by one-third, but in reality far more of the population's own accord. Cases are known, in which fields already sown with opium have been ploughed up again, because the owners feared they would be deprived of the right of selling the crop. - At Kai-feng and in most of the towns in the province, shops where opium was smoked formerly have been closed and the sale has been entrusted to a few specially licensed shops. Pipes and other accessories are not displayed in the streets as much as before. - Quite recently officials were set a term of 2 months, on the expiration of which they must choose between their office and the opium pipe. The same term of 2 months was fixed once before, i.e., in the 3 rd month, but as the official entrusted with the control had to leave for some reason, the order remained an empty threat. It would not be surprising, if the same thing happened again. At all events it is a fact that efforts are being made, though for the present they are not pursued to their prescribed end. - It is said that several thousand people have already given up smoking. An establishment for curing smokers has been opened at Kai-feng and their proportion is
said not to exceed 30 per cent, which is lower than in Shensi and Kan Su. - Trains are searched by specially appointed men and suspicion is enough to lead to a personal search, in which both opium and smoking accessories are confiscated. Parcels suspected of containing opium are also examined at the post offices.

The budget of the province is said to be as follows:

## Revenue.

## Expenditure.



In the company of my new friends at Kai-feng, the railway manager Zephyr Paris, June a young Belgian, and an energetic Norwegian of the same age, Mr Blix, who recently Char undertook the management of the provincial posts, I shook the dust of Kai-feng-fu from my feet this morning. The monotonous journey to Chen-chow was made shorter by the unceasing flow of talk of the controller of the train, a retired French marine. - After waiting for two hours in the scorching sun at Chen-chow station I was at last able to board the train from Hankow to Peiping, heartily introduced by my late protectors to their colleagues on this train. - The heat in the carriage was insufferable. The open window admitted clouds of dust that could have competed successfully with the dust on the railways of Transcaspia.

The most remarkable part of the journey is the bridge across the Yellow River. It is 3 km long. The line runs for a short distance along the S bank of the river and then turns almost at right angles and reaches the bridge after passing through a short tunnel. The bed of the river is approximately of the same width. The water was low at present and flowed in three arms, the N one being the largest and navigable. A small flotilla of barge-like smacks was moored to the bank. The level of the water is said to be extremely variable and at times half-an-hour is said to be sufficient to make an all-devouring sea of this calm river. Several junks are said to get crushed against the stone pillars of the bridge every year. I was told that there were men whose occupation consisted of lying in wait and plundering each boat at the moment, when it was abandoned by its crew. The latter are said to be completely passive and never to appeal to the law for help. - At a short distance from the bank we passed an embankment of considerable dimensions that acts as a protection for the plain, when the river rises. Half-ruined clay huts, intended for watchmen, are visible at
regular intervals. A great difference in the level of the surface can be seen with the naked eye between the ground close to the river beyond the embankment and the considerably lower plain to the N of it.

Between 5 and 6 o'clock the train stopped at Chantufu, where passengers, with their luggage, both hand and heavy, had to find rooms for the night in order to continue the journey at 7 next morning. - The walls of the town stand about $2 / 3$ of a mile $E$ of the station, a couple of towers protruding beyond them. At the invitation of one of the French railway agents I spent the night in one of a row of small houses put up for the railway staff close to the line. I did not visit the town, but took a refreshing bathe in a little river not far off.

A musical and dramatic entertainment was arranged for me in the evening, the performers being agents and contractors of the railway, Frenchmen, Spaniards and Italians. The only people who did not perform were a small M-me Chrysantème, a broad-shouldered and coarsely built Japanese lady, a Chinese officer, whose spirits seemed to rise as rapidly as those of the noisy company, and myself.

June 7th. Unaccustomed to such excesses, I spent a disturbed night and was only half-rested Tai-yuan-fu. when I had to rejoin the train at $5 \mathrm{a} . \mathrm{m}$. The journey was monotonous, though the landscape was slightly enlivened by the mountains of Shansi running on the left of the line at a considerable distance. The rough and steep outlines of the mountains indicated that the soft earth of the hills had given way to granite. At a little after I i we reached Chen-chow, where the narrow-gauge railway of Tai-yuan-fu started. Both stations lie close together and I continued my journey already at 1 o'clock. The fare for the journey of not quite 300 km is ${ }^{1} 5$ dollars I class and 3.90 III class. Luggage is charged 2.50 dollars per pickul. The cost of building the line was so heavy that it was necessary to raise the usual fares. After travelling across the plain for about an hour we entered the mountains. The line keeps on curving, often very sharply, and leads over a great many bridges and viaducts as it winds through the mountains that grow higher and wilder. The first part of the journey is along the narrow valley of the Tsi ping ho that gradually ascends to the highest point of the day, the watershed between the rivers of Chihli and the Feng ho system. The highest altitude ( 1074 m according to the railway surveyors) is reached between the stations Kin shui ( $150 \mathrm{I} / 2 \mathrm{~km}$ ) and Chow yang hsien ( 160 km ). Further west there is a gradual descent.

We were now following the valley of the Chow chiao ho. Owing to the kindness of the second engineer of the line, Mr J. de Lapeyrière, I was able to enjoy the beautiful and wild scenery from his private carriage, which was coupled on to the end of the train. He described the building of the railway in an interesting way with many details. One could scarcely help being impressed by the difficulties that had been overcome, the excellent solution of the problems being especially worthy of admiration. We passed no less than 18 or ig tunnels, all blasted in the rock. The largest number was between Chengkia lungti ( 92 km ) and Luan Lion ( 10 km ). The cost of construction came to $180-200,000$ francs per km . The earnings, chiefly based on coal exports, do not seem to fulfil the expectations of the company, at any rate so far. Transport is so expensive that the coal cannot compete

A steel bridge being built over the Hwang ho.

in the Tientsin market. It also seems to be a vital matter that the line should be carried on to its junction with the line from Tientsin to the South. A similar line was proposed from Chen-chow to Tung Kwang, but the concession had not yet been granted. There were said to be large coal deposits in the neighbourhood of Pindin chow. A small line leads to a mine worked by a German-Chinese company and situated in a side-gorge a few km from the railway. It appeared to be among the few that were being worked in an up-to-date fashion. A former German naval officer, who had risen to the rank of admiral in the Chinese service, was managing the company. Small black mounds could be seen on the surrounding slopes, indicating the hollows, in which the local population mined its coal. At Yang sui, a station not far from Pindin chow, there are considerable coal deposits divided into small cubes belonging to a great many small exporters. Yutzu, a station not far from the end of the railway, is also of some importance. Here the arbah road from Si -an-fu joins the railway line, and if the line is continued to the SSE to the bend of the Yellow River, it will undoubtedly start from here. The rich and powerful town Taiku lies $70-80$ li to the S , powerful owing to the many millions whose owners come from here and spend some parts of the year here. The traffic is insignificant between Yutzu and Tai-yuan-fu. - The railway gauge is I m. According to Lapeyrière's estimate it would cost about 20 million francs to convert the line to the standard gauge. The railway carriages are comfortable and pleasant, the I and II class being decorated with charming views of France. The line is well laid and there is very little shaking.

At io p.m. we reached Tai-yuan-fu, the fine little station being built next to its $S$ wall. Lukanin and Hsy met us, having been summoned by the stationmaster, formerly a Parisian bon viveur, who had plenty of time now to brood over the mutability of life among the grey mountains of Shansi and the constant clouds of dust in the intervals between the 2 or 3 trains of the day. Early one morning I called on him, just after the train had

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left, in order to obtain some information from him, and was received by a man of acistocratic appearance, though rather the worse for wear, arrayed in a short Japanese kimono. A faint light penetrated the drawn sun-blinds, there was a pretty collection of picturesque images in a cupboard, a couple of bottles on a table, some silver tumblers decorated with chased Chinese dragons and, by way of contrast, a collection of red signalling flags arranged on a shelf with as much care as he probably devoted formerly to his riding whips and walking sticks.

The sarai, in which Lukanin had hired rooms, was pleasant and clean. Prices, however, had become "civilised, for I had to pay $21 / 2$ dollars for 2 rooms, which would have been robbery in Kan Qu.

June 12 th. The town lies to the E of a tributary of the Peng ho, flowing from the N , on a plain at Tai-yuan-fu. some distance from the mountains that enclose it on the $\mathrm{E}, \mathrm{W}$ and N . In the S the horizon is open. Two slender towers of a Buddhist temple stand out high above their surroundings in the SSE. Towards the river especially the neighbourhood is wooded, cultivated and populated. With its numerous towers, and tall pagodas, the shady crowns of many trees protruding high above the old wall, the town looks pretty in its verdant surroundings against the grey background of the mountains. The first impression is confirmed when you are inside the town walls after passing through two of the old arched gateways, built in a row. Excellent macadamised streets, the beginnings of a public garden with a pond and many well cared for buildings give an unusually attractive appearance to the town, embedded in its green trees with its rich yamens and old temples, the glazed green and red roofs of which sparkle in the sun. The number of policemen is enormous. A great many of the shop fronts are beautiful, decorated with designs in bright colours.

The Chang ha miso temple is one of the most beautiful I have seen. Its imposing entrance and large courtyards are embellished with many "peilu", heraldic statues of men and beasts, rich ornamentation in green glazed tiles etc. There is another large temple close to the S gate, called Lieu itsu mao. It is visited by invalids who wish to have a prescription for medicine from the gods themselves. The sick person receives a goblet from the priest with a bundle of wooden sticks stuck into it. Kneeling before the altar, he shakes the goblet until one of the sticks falls out. The priest reads the inscription on it, tears off one of the leaves of the numerous packets of yellow prescriptions fastened to the wall on either side of the image of the god and gives it to the supplicant. With this valuable document in his pocket the sufferer wends his way to the chemist's.

There is much in the town to remind one of the terrible tragedy that took place about a month before the combined troops of the European powers and Japan put an end to the licence of the Boxers' instincts by the occupation of Peiping. Treacherously lured into a trap by the promise of protection by the governor of that time, 35 Protestant missionaries, male and female, and 12 Roman Catholic nuns and monks, including two bishops, were put to death in a single day after horrifying tortures in the governor's own lawcourt. It seems as though the seed of this innocent blood had borne fruit, for from the ashes of the victims' houses schools, hospitals and churches have arisen, to contribute, each in its own
way, to remove the hatred of foreigners, the result of superstition and ignorance, of which there was such a terrible outburst during the Boxer rising.

With the funds offered by the Chinese Government in order to acquit itself of responsibility for this crime and refused by those concerned, a university has been built, superintended by Europeans, especially Englishmen, where 250 Chinese are given a thoroughly western education annually. - On the spot where the former Baptist mission was sacked, a hospital stands now, run by English Baptist missionaries, who are qualified physicians. Its exterior, a mixture of European and Chinese architecture, is an ornament to the town. It is overrun with patients and is growing year by year in accordance with a prescribed plan. The residence of the Roman Catholic bishop is a large mass of buildings, behind the dark walls of which a big cathedral with two belfries crowned with crosses towers high above the surrounding Chinese houses. The bishop and monks are Italians, but various other nations are represented among the nuns. The bishop's principal assistant is said to be the only European who succeeded in escaping from the carnage by climbing the walls, when the town gates were closed to prevent the victims escaping by flight. On the whole the work here proceeds in the same way as at Si -an-fu, though the exceptional powers of organisation that I witnessed there, are, perhaps, not quite so evident here.

Besides these large establishments that cannot fail to attract attention even on a cursory visit to Tai-yuan-fu, there are, no doubt, many Europeans, who try to develop the people by means of schools and religious activities. Unfortunately, the short time at my disposal did not permit me to visit them all and obtain an idea of their work. Quite close to the governor's yamen there are two stone tablets let into the clay wall of a low building with inscriptions in Latin and English, giving the names of the 47 martyrs. A small wooden pagoda with two similar tablets marks the spot just outside the town, where their bodies were thrown and whence they were subsequently dug up and buried by relatives and new missionaries.

Among the other striking buildings in the town the so-called museum is worth mentioning. The whole group of buildings is large and beautiful, the main building being twostoreyed, but it is hard to imagine why it was called a museum. With the exception of about a dozen stuffed animals the whole house is a kind of place of exhibition, in which a few objects occupy large wall spaces and glass cupboards. Anyone, who cares to do so, can send objects here to be sold, though the prospects of effecting a sale appear to be slender, as the establishment is mostly kept securely locked and it is difficult to gain admittance.

A steam roller, a couple of inns with signboards translated into English, a mineral water factory started by Mr. N., which is a temptation during the hot summer months both for Europeans and Chinese, but above all thousands of posters and advertisements of the Anglo-American Tobacco Company, pasted up on walls, houses, gates, temples and every conceivable place, prove that the town has already attained a high degrec of civilisation. The posters of the Tobacco Company must surely mark the frontiers of civilisation in China at present, although we may soon expect to see them pasted up on the most inhospitable temple walls of Tibet. Their smart local representative, Mr Widler, showed me pictures on silk, specially made for mandarins who have proved themselves to be worthy
of the honour, or for those who have to be put into the right frame of mind. Among scenes of Chinese social life you find many of the company's coloured posters. They are said to be very effective, however, and there are not a few mandarin's dwellings, in which such pictures, suitably framed, adorn the walls.

The population of the town was variously stated to be $22,33,40,50$ and 150 thousand. There are said to be a few hundred Mohammedans who have their own mosque. Richard's geography, which is not shy of large figures, estimates the number of inhabitants at 200,000. The two latter figures seem to be greatly exaggerated, while the two first are considerably underestimated. The area of the town is very large, but a very considerable portion is mere waste land. It is surrounded by a fortress wall, dilapidated in some places, about 55 feet high, of a rectangular shape with two gates, one large and one small, facing the four points of the compass. They are protected by not very deep buttresses with double arches built one behind the other. There are many other small buttresses. Very large towers, going to ruin, with innumerable embrasures for guns facing outwards and to the sides, are placed at the corners. A dry moat of appreciable dimensions ( 35 yards wide and 35 feet deep) completes the antiquated defences.

The problem of communications is at the same stage in Shansi as in the provinces I have travelled through lately. The authorities and notables are anxious that all further railway construction should be carried out by themselves. The French company that recently completed the Chen-ta-lu line, has not only failed to get its concession extended, but the authorities place all kinds of obstacles in its way, evidently with the intention of paving the way for repurchasing the line.

The Chinese scheme is to connect Pu chow fu in the S with Tatung fu in the N by a railway line through Tai-yuan-fu. It is to be called Tung-Pulu. A preliminary subscription for shares undertaken at the instigation of the last Fantai is said to have yielded 6 million taels, if the money is actually paid up when the authorities seriously begin to carry out the scheme. Foreign engineers will probably be engaged to build the line. The line, however, is said not to have been surveyed yet by specialists, nor, I am told, have definite estimates been drawn up. The calculations are based, as usual, on the same old 10,000 taels per li that haunt the brains of all mandarins who dream of improved means of communication. The cost may well be infinitely higher in reality in such mountainous country, in which the French narrow-gauge line has already involved an expenditure of 180,000 francs per km .

In such a poor province as Shansi this question is connected more closely than elsewhere with the improvement, or rather, the introduction of mining, for what there is at present can scarcely be taken seriously. It seems probable that these questions will have to be solved simultaneously. The „Peiping syndicate» with its large concessions would probably have improved the exploitation of the iron and coal resources of the province with the help of the improved means of communication, if the opposition of the population and the authorities had not forced it to avail itself of the golden bridge provided in the form of an indemnity of over 2 million taels. Now the authorities hold the field in this sphere, too, and the result can scarcely fail to be anything but considerable delay or in the best of cases a process of fumbling without any real system.

The only mine that is worked rationally is said to be the one near Pingting chow owned by the German-Chinese company. - The supply of coal and iron is said to be very considerable and the coal is supposed to be of excellent quality. Iron is cast and kettles are exported in large quantities from the neighbourhood of Pingting chow. In Shensi I frequently saw arbah wheels and ploughshares of cast iron imported from Shansi. - There are said to be other metals, too, though for the present it is impossible to establish their quantities. At Mr Nyström's I was shown samples from the mountains containing coal, coke, anthracite, bituminous coal, iron, lime, sulphur, pyrites, sulphate of iron, alum, soda, gypsum, copper and brass. Maps of the mineral resources of Shansi, drawn by the Peiping Syndicate, indicate coal and iron throughout the whole province and oil in a considerable area, in the SW part. On the other side of the Hwang ho oil is already being obtained in Shensi. - It will be a stiff job, however, for the newly appointed mining engineer, Harald Martin, to get anything started. He has spent six weeks at Tai-yuan-fu already, but has so far not been given any instructions. It is typical of the Chinese system that another mining engineer, also an Englishman, has been appointed and stationed at Pingting chow, though no connection has been established between them.

The armed forces of Shansi are organised as in Honan and are composed of ludziun sunfang and police troops and an incomplete ying of Manchurians. The former form an incomplete brigade, as there are no sappers, transport or field hospital. A year ago there was talk of setting up another i ying of matui, 2 tui of sappers and, in the way of transport, of securing 2 arbahs per tui in the different yings, but nothing has come of it. - The arms do not seem to be uniform even among the ludziun troops and they are to a great extent out-of-date. - Drill is performed punctually.

The arms and cartridge factory about 2 li N of the town employs $70-80$ workmen, many of them from the South. io mountain guns and a few Mauser and Mannlicher rifles are said to have been manufactured, rather as samples. At present 7-8oo cartridges are turned out daily. Nickel is obtained from the South. Repairs are also made and, when necessary, swords, drums, trumpets etc.

The powder factory is situated in the NE part of the town, near the E gate. It works in the spring and autumn and employs 40 men at such times. 4 flourmills (formerly 8) produce 150 cases of 120 djin annually.

The ludziun pien mu hsio tang trains non-commissioned officers and corporals (senchang) for the different troops. The course lasts i year, $1 / 2$ for general subjects and $\mathrm{I} / 2$ for special subjects connected with each kind of arms. Altogether 16 subjects are taught including arithmetic, topography, target shooting, regulations etc. There are 8 masters from the Pei yang troops. At present there are 30 pupils. Formerly the number was 70 .

The ludziun hsiao tang is the same here as at $\mathrm{Si}-\mathrm{an}-\mathrm{fu}$ and other places, i.e., not highclass. 6 masters, 2 of whom are Japanese, 240 pupils. 3 years' course. The establishment of another ludziun hsio tang is planned in the Manchurian part of the town.

The other schools opened in the town are as follows, besides the university:

Kao teng hsio tang, 8 masters (2 Japanese), ${ }^{1} 30$ pupils divided into 3 sections with 6,4 and 2 years' courses.
Si fan hsio tang, 8 masters (2 Japanese and 1 Englishman)。 170 pupils.
Min hsio tang, 6 masters, 200 pupils, |established by mandarins and merchants Liang teng hsio tang, 5 masters, 200 pupils $\int$ train masters for elementary schools. Kao teng hsiao hsio tang in the Manchurian part, 3 masters, 60 pupils, 3 years' course. Ming yang hsiao hsio tang, 8 schools.
Nu hsio tang, 70 pupils, Nu kai teng hsiao hsio tang, 70 pupils.
Tsung hsio tang, 5 masters, 170 pupils, 3,2 and $11 / 2$ years' courses.
Facheng hsio tang, 6 masters, 90 pupils (mostly „hubu*) in 3 sections with 3 , 2 and 1 year's courses. Principal subject law.
Hsun ding hsio tang (police), 4 masters and 120 pupils.
A school of mines is supposed to be opened soon.
The following schools are said to have been opened in other parts of the province:
19 Kao teng hsiao hsio tang
In 9 fu and io chow: 19 tsung hsio tang
19 si fan hsio tang
57 ming yang hsio tang
19 nu hsio tang (or Tien su hui)
In 94 hsien: ........ 94 kao teng hsiao hsio tang
94 nu hsio tang
284 ming yang hsio tang
In villages:. ........ (?) several hundred elementary schools.
A great deal has been spent on buildings and establishment in general. The teaching staff is still not equal to its task. A large proportion, however, has studied in Japan, but in the majority of cases such studies have been confined to a short stay. Nevertheless, there are many indications that serious efforts are being made to improve this, undoubtedly the weakest point of the school reforms. Last year 20 or 30 pupils who had completed the course at the Kao teng hsio tang were sent to Japan at the expense of the province, while at the same time 25 of the best pupils of the Ta hsio tang were despatched to England. So far the grants have usually been calculated for quite an insufficient time, by the end of which, whether he has completed his studies or not, the scholar has to return to Peiping and pass an examination at court - in Chinese! There is scarcely any doubt, however, that the Chinese authorities are beginning to see things in their true light and that this defect will also be remedied.

With regard to the abolition of opium smoking the province falls short of the other provinces I have passed through, with the exception of Sinkiang, of course. About two years ago the governor of that time gave orders that opium growing should be restricted, but since the arrival of the new governor cultivation has increased again. This vice is only combated by means of higher taxes. 7 taels in silver (as against 4 taels two years ago) are now paid per roo liang (in weight) of opium. 3 taels in silver are charged per mou for the right of growing opium. A hospital for opium smokers has been established in

Tai-yuan-fu, but so far its work has been confined to distributing medicine. - The sale of accessories for opium smoking is now prohibited at Tai-yuan-fu. In many other parts of the province, however, it proceeds unhampered. The present governor does not appear to be keen on the reform, but even if he were filled with the best intentions, the suppression of opium growing and its abuse in this province has to face some unusual obstacles. The opium of Shansi has the reputation of being the best in China and is in great demand. The richest bankers of the empire are supposed to be natives of Shansi and most of them live at Taiku and in its neighbourhood. Among them opium smoking is a virtue that prevents the heirs to their fathers' millions from leading a frivolous life outside their homes. And the fathers themselves introduce their sons to this vice early in life. It will be no easy matter to get them to alter their views.

The day before yesterday I auctioned some of the things that were not worth taking to Europe. Dr Nyström, who had selected the pick of them the previous evening and promised to dispose of the rest at a suitable occasion, informed me in a typewritten circular that on the following day at $5 \mathrm{p} . \mathrm{m}$. an auction would take place, at which I would sell horses, rifles, cartridges, glass, cups and various refreshments. The auction, attended by scarcely a dozen Englishmen, was very gay, bringing in about 160 dollars. The last of the horses that I had bought at Osh was sold in the morning to a mandarin for 42 dollars, and the chestnut that the mother of the Torgut lama had presented me with, was purchased by the commander of a piao for 30 dollars. Lukanin's horse was acquired by an army surgeon for the modest sum of 17 dollars. Nyström was determined to have my small black horse from Ili and we had already agreed upon the price, but in view of my coming journey over Kweihwa ting I withdrew from the bargain. He offered me a very lame horse for the journey, which I could sell or even give away at the end of the trip, if only I would let him have the black, but I was not to be persuaded.

In the evening $N$. invited me to a farewell dinner. I had already attended a couple of farewell meals, but had been forced to postpone my departure for unforeseen reasons. When giving me the invitation this time, he asked with a note of anxiety: "You really are leaving to-morrow?» I assured him that I was, and this time I did not disappoint him. As a matter of fact, it was not a farewell dinner, but a reception for Mr and Mrs Makoi, to which I was also invited. I owe him many thanks, however, for all his kindness during my comparatively long and pleasant stay at Tai-yuan-fu. - I sent off Lukanin, who had developed pains in his stomach and diarrhoea, with letters of introduction, both open and sealed, to the Russian Ambassador in Peiping and down to insignificant railway agents and controllers. Almost all my baggage was despatched in his charge, so that I should be able to travel with nothing but the 2 barometers, some clothes, blankets, washing materials, a couple of books and some tins of food.

We left Tai-yuan-fu by the N gate. In front of us and on both sides of the road there was an open plain with scattered clumps of shady trees and here and there a few houses. A suburb with a short bazaar street lies N of the gate. The mighty towers at the corners of the fortress gazed threateningly across the plain with their dozens of turrets. On the
right, a couple of li from the town and at some distance from the road, we saw the arsenal with a tall chimney placed at one end of a shining white group of buildings. There were mountains in the E and W at a great distance. Light rain that had been falling during the night and throughout the greater part of yesterday had laid the dust on the road. It was a great pleasure to walk a great part of the day's journey, for in China you seldom have an opportunity of walking along a road that is not smothered in dust.

After passing the inevitable Shih-li-pu we entered a sunken road in soft ground. It was comparatively wide and some trees were even growing there. - At 20 li we came to Singtien with $30-40$ houses enclosed by a decayed wall. From this point the road only led occasionally for a time between walls of earth. Just as often we were on the surface of the ground. We reached Hwanghei-i with $50-60$ houses about a li further on. Beyond it the sunken road began again. All the crevices and the ground on the plateau of löss were tilled and cut up into small fields. - At 30 li we passed Yen chuichen, a village of 200 houses with a bazaar, several li in length and a small watercourse at its end. The road led up again on to the plateau of löss. From time to time we caught sight of the river. On either side of the road there were small hills not far from it, rising in terraces. Beyond them, still very far off, the mountains were visible. At 50 li we came to the village of Chinglungcheng with 300 houses, intersected by a river bed, about 25 - 35 yards wide, of the same name. The bed consisted of löss. The channel was small. Here it described a curve from $S$ to W , pressing against the very high, perpendicular bank. In descending to the river bed we passed a row of monuments on the right, placed on a terrace of bricks along the edge of the bank with a long balustrade. On the other side of the village we entered a slightly stony valley, about 700 yards wide, between heavily scored small slopes of löss. Some solitary trees could be seen. We crossed a small river, the Hwangtu chai ho, again, flowing SSW, about the place where it joined the Shenku ho, another river just as small, flowing eastward. Small stone projections built to protect the bank at highwater indicated that it could rise considerably. A sunken road led us up an easy slope to the level of the löss. On the left we passed a temple, Laoje miao. Once more another sunken road led us down into the same river bed at the spot where the stream flowed in two arms through the village after which it is called. The distance covered was 60 li. The village of Hwangtu chai consists of about 800 houses. Gaolyan, millet, peas, wheat, mustard, hemp, tchaumey and a little opium are grown. The average crop was said to be 9 (?) fold. The livestock consisted of $7-800$ head of cattle, 600 horses, 1,500 donkeys and about r,ooo sheep.

7une 22nd. At first the road ran in the same NNE direction as during the greater part of yesterday. Chih-tsung We followed a river valley, about 350 yards wide and stony in parts, between hills of löss village of no great height. 3 or 4 times the road crossed a river bed almost devoid of water. The bottom was soft, in places marshy. There were tilled fields on both sides in the valley.

After so li we passed the village of Piti with 80 houses. A sunken road led on from there, ascending gradually. We reached the level of the plateau of löss after about 9 li. The country that spread in front of us was a large, bare plain. Excepting the village
of Mapyntai with 170 houses, reached in 1 li, neither trees nor villages were visible. Far off (several li) it was bounded by two parallel chains of mountains running north like the road. Just after leaving the last shady village the view opened up to the $N$. The mountain chains pushed forward a couple of comparatively high mountains connected by a low ridge that closed the valley at about $195^{\circ}$. A large gorge seemed to open up in the direction of $150^{\circ}$. At a distance from the road we could see 2 or 3 large villages embedded in verdure.

The harvest was much later here than in Shensi and Honan. The poppy fields were still in bloom, a difference of a month. The wheat and barley were unusually low in growth. After 30 li Tai yu cheng with 80 houses; after 35 li San hödien with 40. Many of the villages contained a good many caves in the slopes of löss. We had now reached the ridge. A sunken road led us into it, rising very gradually. - After $3^{8}$ li Jouzashang with 100 houses. For a time the sunken road dipped slightly. At 40 li it was closed by a solid double wall, built in the form of a horseshoe and connecting a fairly large mountain on the right with a hill on the left. Between and outside the two arches of the walls there was a small village, Shih-ling-kuan, with 20 houses. Beyond the village the road turned half to the right round a spur of rock and again led us between walls of löss. When the view was open for a short time, we had a large valley in front of us, running north and considerably lower than the ground, on which we still were. It was framed by long mountain ranges of appreciable size. We had crossed the watershed and the ridge consisted mainly of formations of löss, although there were a number of spurs of rock in granite, especially on the right of the road. On the left there were mostly terraces of löss. After passing another stone wall with 3 archways we reached ( 45 li ) the village of Kuancheng cheng with 150 houses. It was intersected by a small valley, slightly stony and dry at present, with a river bed.

Beyond the latter village we entered a stony road between small hills of löss. Soon after, we left the highway to Sinchow and took a smaller one, slightly further E, which was said to lead to Yutai hsien 20 li sooner. Soon we were out of the sunken road and on the large plain I have just mentioned, a good deal closer to the considerable mountain range on the right than to the mountains that were visible far off to the left. There a chain of small mountains extends, with frequent breaks, far beyond which the actual range appears with chains rising one behind the other. To the N , far ahead of us, the mountain chains seemed to run into each other and close the valley. The fields were slightly stony at times. The numerous large villages in the valley with their shady green trees looked picturesque, enclosed in a beautiful frame of mountains.

We passed the villages of Liuchiaku with 100 houses and Sinchuan with 30 after about 60 li . The walls of Sinchow were visible far to the W on the opposite, slightly falling slope of the plain. After 70 li Hanyang tsung with $\mathrm{I}, 000$ houses. At $75,80,83,86$ and 96 li we came to the villages of Hsitai with 70 houses, Peishung with 200, Tsyjantsung with 250, Wi djachuang with 80 and Nanhu. After 104 li we reached Chih-tsung, a village of 500 houses, belonging to Tingsiang hsien. Here gaolyan, peas, millet, tchumiza, some wheat, hemp and a little opium are grown. Average crop 8-9 fold (?). The inhabitants own about 30 head of cattle, 200 horses and mules, 300 donkeys and 500 sheep. - Nothing has been
done yet to counteract opium smoking. It was only a few months ago that the decree was published, announcing that all opium smoking was to be abolished in the course of 10 years. Accessories are sold openly and there are dens for enthusiasts. Opium growing was reduced a few years ago without any pressure on the part of the authorities owing to bad harvests.

June 2 grd. We went on in a NE and NNE direction across the same valley, approaching the E rutaihsien. mountain range more and more, but especially the mountains that closed the valley in the N. After 5 li we passed Hsinsiang tsung with 200 houses. io li beyond we reached the town of Tingsiang hsien, a little place full of vegetables and inquisitive people. After 25 li Wan ting tsung with 60 houses and after 35 li Chiatsung with 800 . Just beyond the village the road creeps round the foot of a very large mountain, coming from the $E$, in which conglomerate is prevalent. North of it the road again cuts across a large valley, framed by mountain ranges. It was greyer in colour and seemed to be less inhabited than the valley we had left behind. In both there were numerous burial mounds, the majority with bulb-shaped stone cones stuck into their tops. Now and then we saw some of the large, upright blocks of stone with inscriptions that are the same throughout North China. I had not seen more of them anywhere than here in Northern Shansi. They protrude like weeds. There are very few variations. Either the block of stone with its inscription is stuck into a four-cornered stone slab or into the middle of a rather long-necked tortoise of stone, or else deeply embedded in the niche of a four-cornered brick column. As in all Chinese architecture, the roof or the separately joined upper part is most richly decorated, usually with the figure of a dragon.

At distances of 45 and 55 li we passed Fanlangdjyn with 800 houses and Hangping with 6 - 700 . After another 10 li we came to the village of Chao an with only 80 houses, but on the other hand much richer in trees than the former ones. - From this place we travelled for a short time along a sunken road between walls of earth which led us up to the level of the ground and then again downward by an equally slight descent. The rock protruded now and then in the wall of earth. - We were once more in an open plain, which we crossed. On the way we rode across a small water channel that wound in a fairly broad bed of löss. After 70 li Tungyeh cheng with 1,000 houses. - Gaolyan, wheat, barley, millet, tchumiza, peas, beans and opium are grown in this neighbourhood. Average crop 30 fold (?). 5 tja own 80 mou each, 20 own 40 mou, 20 own $30-40$ mou, the rest 5 - 10 mou; only a few own less than 5 mou. In the same order the I category owns 5-6 horses, $3-4$ donkeys, a few head of cattle and 200 sheep; the II category $2-3$ horses, $1-2$ donkeys and 350 sheep; the III category $\mathrm{I}-2$ horses, $\mathrm{I}-2$ donkeys and $10-20$ sheep; the IV category 2 donkeys.

We had now reached the nearest mountains. We crossed the first ridge. After ascending gradually along a sunken road we reached the highest point of the ridge, or rather, of the road, not far from a small temple, Lao Wang miao ( 80 li ). Barometer No. 1670.2 . The same large, dark mountain ranges were still visible in the $E$ and $W$ that had accompanied the road since yesterday and bounded the valley we had been following. In front
of us, i.e., in the N, we saw, when the view was open for a moment, several chains rising one behind the other, their rough outlines showing that these were no longer hills of löss.

After 82 li we reached Wan ting kang with 50 houses. Here the road dipped slightly and soon led us down into a stony river bed, compressed between mountains of conglomerate. Layers of löss were only visible here and there in some cracks. We continued for a short time at its bottom, after which the road climbed a short way up the slope on the left. The road now became stony and often went along ledge-like galleries. It was, however, sufficiently wide and good for wheeled traffic. We had left our gorge and soon entered another. For a time we descended again along a sunken road. We passed a small village, Hwantupo, with 8 houses ( 92 li ) and reached Nankuan, a suburb of Yutai hsien, after covering 102 li. From here we could see the town on the other side of a narrow valley. It lies on a high stone hill going in terraces and its half-ruined old stone wall towers over the surrounding valley. Crossing the latter and a small river flowing $E$ of the to wn, we turned our steps towards Tung kuan ( r 03 li ), where we stopped for the night in a sarai that was not too bad, though small. Stone is used more and more for building. Many of the buildings have large stone basements and large parts, especially on all steep slopes, are built of stone.

In Shansi the fields are often irrigated by hand or by means of horses or mules. For the first time I saw a curious pump on the river that it took no less than 4 men to work. Two men, each sitting in an armchair, filled a short channel of earth with water from a basketwork pail, to which four ropes were attached. Two other men sat at the other end of the channel, raising the water to a channel on the level of the field by the same manipulation, whence it spread over the fields.

Yutai hsien, with a population of about $\mathrm{I}, 000 \mathrm{tja}$, is the principal town of a mandarin's district consisting of about $10,000 \mathrm{tja}$, and is the residence of its mandarin. - Wheat, millet, gaolyan, peas, maize, mustard, red kunsjut, rice in the lower places and opium are grown in the district. Average crop 5-6 fold. - Two years ago restrictions on opium growing were introduced, but now it can proceed again unhampered. Owing to the bad harvests of the last few years the population here, too, is said to have reduced the growing of its own accord.

The wealthiest man of the district is said to own $\mathrm{I}, 200$ mou of land, 5 men 800 mou each, 20 men 200 mou each. Of the rest of the population about $30 \%$ own 80 mou and $50 \%$ only $2-3$ mou per tja.

Some rain fell yesterday evening and, judging by the wet look of the ground when we started, it must have continued during the night. It still looked threatening when we rode away this morning. The peaks of the hills enclosing the cauldron-shaped valley of the town were enveloped in a veil of grey clouds. After a short descent the road entered a cleft that led in a pronounced easterly direction between hills of löss, steep slopes and small mountains. After 5 li we passed the village of Tatugo with $6-7$ houses. A stonepaved road, winding in sharp curves, took us to Muhu kuan, an archway with the traditional tower built between two spurs of rock on a ridge that we crossed. Barometer No.i 640.9. Looking to the W we saw a labyrinth of hills with terraces and long slopes.

The Yutai hsien area is in reality not a valley, but a depression between two or more mountains. The town and the surrounding villages lie on the slopes. In the NE the landscape is of the same character; in the NE, however, $\left(250^{\circ}\right)$ a level, cultivated plain is disclosed, going in a southerly direction, from the luxuriant verdure of which large villages with white houses and dark-coloured trees protrude like huge bouquets. To the E of the plain fresh chains of mountains rise one above the other.

The descent was short and not steep. After 12 li Nantaising with 300 houses. After 20 li on the other side of the plain Sutzu fu with 400 . Immediately beyond the ascent of another hill began. We reached the Laokuli pass after 22 li. Barometer No. I 639.8. For a considerable time we now remained at about the same level, shut in occasionally for a short distance by walls of earth. Mostly, however, the road was open. At 25 li Tsu chia tsuang with $70-80$ houses. After 28 li Lungwang tha with $50-60$ houses between two hills. Further to the SE and S we could sec a larger chain of mountains of a darker colour than the surrounding hills. It was often intersected by valleys that formed a chain of mountains separated from each other. Grass was visible in folds of the earth in the higher parts of the slopes. After 30 li Hanling-tzu with $3^{2}$ houses. E of it we ascended another height, Thu tsunli. Barometer No. i 636.7. A long and at times steep descent led us into another valley. From the heights there was an excellent view of yet another valley in the E. From the W, $\mathrm{N}, \mathrm{ENE}$ and S large gorges opened up, each with a broad, stony river bed that ran together into 2 large, stony arms and disappeared in the S and SW among the mountains enclosing the valley.

During the descent we went along a sunken road occasionally, at other times long distances were paved with stones. After 40 li Katatasen with $50-60$ houses. At 4 I li Tutsung with 300 houses at the junction of two stony river beds coming from the W and N . Both were dry at present. I was not able to ascertain their names. They are called either the western and northern river or after the village, where they form a junction. They were said to run into the Kutu ho which flows past Taichow. - Sinchuang with roo houses and Nanthuthu with $30-40$ at 45 and 50 li, the latter on the broad, stony bed of the Liu jun ho. This is one of those we saw from the hills and is said to flow to the south until it joins the Liu wang ho which in turn supplies its waters to the Kutu ho. It would, perhaps, be more correct to say that it supplies stones and not water, for the bed of the Liu jun ho is bone-dry and is said to be so all the year round.

For the rest of the day the road continued along the bed of the latter river. After $5_{1}$ li we passed a little temple, Yutai su, on the river, dedicated to the god of rain (Lung wang). It was said to have been built in the time of the Emperor Chow, but looks strikingly new after recent repairs. It was raining at the moment, but man is never satisfied. The god must go out to pray for more rain. He had just been placed in his comfortable palanquin, surrounded by a dozen children and tatterdemalions carrying banners that were black with age and dirt. Their ragged clothes formed a curious contrast to the gilded chair and the unusually clean courtyard of the little temple. They hurried off to the sounds of two whining clarinettes and a couple of brass cymbals, just as I produced my camera. On the opposite bank, at some distance, a high tower in many storeys was visible, surrounded by
shady trees. I was told that it was built in honour of the god of carpenters and joiners (Lu pan).

The river bed and the banks grew stonier and rougher. The mountains on either side were of soft earth with soft outlines. After 60 li Tunghu tsun with 30 houses. After 65 li Shaliu-u with $30-40$ houses. We passed a couple of side-gorges, each with a river of stones. After 70 li the river divided. One arm came from the N , the other from the NE. We followed the latter. After 80 li there was another fork in the river. The end of both arms could already be seen. Darkness was coming on and we sought shelter for the night in a temple halfway up the slope of the mountain on the right, close to the road that led up to the pass we were to cross next day.

A reincarnated Buddha from Tibet on his way, like ourselves, to Yutai Shan, had installed himself in the little, decayed temple before us. He was locked into a room, only the sound of prayers murmured in a low voice betraying the presence of His Holiness. A large part of the courtyard of the temple was occupied by a huge piece of rock of a peculiar shape. When it rains, the god of rain is said to seat himself on the stone in the form of a dragon.

It was a cold and uncomfortable evening. I was very glad that at the last moment before leaving Tai-yuan-fu I had been able to buy back a coat that an Englishman had bought at my auction for 15 dollars. The cold kept me from sleeping, as I had given Tchao and Li a couple of my blankets.

This morning we continued our journey up the slope to the pass which we reached after covering $2-3 \mathrm{li}$. I understood from my guide that we had to cross a higher pass and took the altitude only after we had descended for about a minute (barometer No. I 585.8 ).

June 9.5 th. rutai Sha monastery. The pass, leading over a grassy ridge, is small and very accessible. In the E and NNF, there were dominating, long mountains - also covered with grass up to their crests. After a short descent, during which we passed the village of Naju with io houses, we came to the gorge, near which Yutai Shan was said to lie. At its bottom we saw another bed of large stones like the one we had just left. The main direction was NNE.

After 10 and 12 li we passed Hwachong with 8 houses and Kungtang with 3-4. At 20 li Hwangtu chui with io houses. Here I met Weng, an official of the Yangwutu at Tai-yuan-fu, who spoke broken English. He was on his way back from Yutai Shan, where he had been sent in connection with the recent visit of the American Ambassador to the Dalai Lama. He tried to pump me in regard to my intentions during my stay at Yutai Shan. As a matter of fact, I had no settled intentions, not even an attempt to secure an audience of the Dalai Lama. This must have failed to satisfy Weng, however, for soon afterwards I saw him following in my footsteps up the gorge, borne in his chair by mules. The gorge grew wilder and wilder with spurs of rock thrusting their way through the löss of the mountain slopes. We had now reached a great mountain wall going in a NE-SW direction, along which another large bed of stones ran, this time with a small channel of water flowing in a SW direction. The road took us up this, making a wide curve round the mountain to the NE, E, ESE, again NE and N. A few small clumps of trees were visible on the slopes, sometimes leaf-trees, sometimes conifers. A couple of side-gorges opened to supply fresh
quantities of stones to the stone bed. Further up the gorge at a considerable distance from each other there were some small red groups of Chinese temples. 2 or 3 tall stone towers, resembling lighthouses, could be seen at a distance from each other along the road, either high up on a mountain ridge or in the bed of stone.

At the last northward bend of the road the traveller or pilgrim catches sight in a small valley of the Mongolian holy of holies, Yutai Shan, which we reached very shortly. After riding through a stinking little bazaar street at the bottom of the valley, we reached the foot of the monastery, built on the lowest gentle slope of the mountain, lying to the E . Towering over the surrounding buildings stands a mound, on the top of which a group of temple-like buildings, led up to by broad stone stairs, protrude from the green of the trees. The sun had broken through the clouds, and the yellowish-golden and turquoise-blue tiled roofs of the mound sparkled in its rays. An enormous pure white suburgan tower in the $S$ part of the monastery caught my attention. All the buildings were placed close together and looked highly picturesque, with clumps of shady trees here and there. The surrounding mountains are long, grassy ridges with a couple of small peaks. A group of temples stands $S$ of the monastery, very picturesquely situated on the crest of a hill, where it divides and makes way for the valley at the foot of the monastery.

My guide, a brisk police soldier from Yutai hsien, led me up a short and steep lane. We crossed a little square that ended in an old »peilu» of trees. Beyond this there was a row of buildings, or rather, elegant roofs, dominated at the far end by the hill with its group of temples - the object of a new arrival's thoughts as much as of his gaze, for it is the present abode, not to say prison, of the Buddhists' pope, the Dalai Lama. A couple of enterprising Chinese with their panorama cases attracted Mongolian pilgrims, who crowded round the peep-holes in their picturesque garments. A Mongolian, evidently of high standing on account of his dignity or wealth, strode through the gateway down the square surrounded by numerous attendants. He wore a curious hat with a very low round crown and wide brim fastened to the crown of his head, where it was held by ribbons tied under his chin. 2 or 3 women followed the group of men, wearing massive headgear of silver ornaments threaded on to one or two ribbons, made of chased silver, like those worn by Mongolians and Tibetans, with medicines or images on their breasts. The whole crown of the head and the neck are seemingly enveloped in a hood of chased silver and corals. One of the women fell back and passed in her heavy high boots between two rows of knceling beggars and cripples. Each one received his cash from the kind old woman.

In the afternoon I called on one of the Dalai Lama's principal lamas on the hill. Two Chinese sentinels were stationed at the foot of the long stone stairs; above, at the door to the outer courtyard of the temple, there were two Tibetans, in turbans and a kind of dark waistcoat over their chests with a tongue-like point. They carried rifles with cocks, weapons that may, perhaps, still be considered modern in Tibet. Inside the courtyard the entrance to the private courtyard of the Dalai Lama is guarded by two other swarthy fellows. His suite and other attendants, numbering about 3oo, are lodged in a couple of large buildings, each with a courtyard in the centre. These are very dilapidated, built in two storeys with long, very unreliable looking wooden galleries outside the rooms of the
top floor. The courtyards are dirty and smelly. While I was waiting for the lama I had come to see, some saddled horses were led down the stairs leading from one of the main courtyards of the temple. A whisper went round the crowd, from which I grasped that the Dalai Lama was approaching. Preceded by some Tibetans, who gave me to understand with threatening gestures that photographing was not allowed, he descended the stairs with hurried steps, clad from head to foot in yellowish-gold. Surprised to see a foreigner in the courtyard, he stopped for a moment. Unfortunately, however, I was too decent to photograph him against his wish. He is supposed to be about 30 and does not look older. The pockmarks that I had heard about were not visible. Behind him there was a group of 3 or 4 Tibetans, among whom I recognised the prince whose photograph I had taken during his passage through Si-an-fu.

According to what I heard, the Dalai Lama is now visited mainly by Mongolians from the easternmost parts of Mongolia. Every two or three days he comes out in order to give pilgrims an opportunity of seeing him and offering their silk scarves, called whataky. There is said to be a collection of a couple of hundred of them. The Chinese authorities seem to guard the Dalai Lama closely. At any rate Weng, who is usually very reserved, said that a cordon of soldiers guarded the approaches to Yutai Shan and in the event of his attempting to leave the place without the permission of the authorities, he would be stopped, by armed force if necessary. This watch must be kept in a very slack manner, however, if it exists at all. During my excursions I never met any soldiers except the two I have mentioned, and on the way there I saw no soldiers anywhere but on his stairs. I could not help noticing, however, that Weng watched my movements with the greatest interest. He urged me in particular to take him with me as an interpreter, should I be received by the Dalai Lama. I concluded, however, that the latter was by no means anxious for Weng to be present at an audience, for a special messenger, the prince with whom I was acquainted, came to enquire whom I would like to bring as an interpreter, and showed great satisfaction when he heard that I had my own man. To make quite sure, he asked again, if I was to bring Weng with me.

The exterior of the Yutai Shan temples differs from those I saw at Labrang. With the exception of some suburgan towers the external style is entirely Chinese. Inside, too, they represent a mixture of Chinese and Tibetan (Buddhist) style. The halls of the temples monastery. have no depth, as among the Kalmuks and Tibetans, only breadth. The altar stands just behind the entrance door with one or more seated, richly gilded, large Buddha images, with one or two rows of smaller ones in front. In one or two I saw standing side figures that formed a kind of double row. The side walls in some of the temples are filled by many niches, in which there are hundreds (in one temple roo) of small idols under glass. The furnishing is sumptuous. Many images are of bronze, but the great majority of gilded clay. Large numbers of coloured ribbons, lanterns, banners etc. are suspended from the roof. Indoors, too, everything is ostentatious, but closely confined. There is no sign of the spacious temple halls of Tibet, rising through two or three storeys, with their imposing bronze giants.

Last night I was present at a service in the temple, in which my quarters are situated. Only one Chinese lama, clad in yellow, officiated, standing with hands folded for prayer at the height of his breast. He wore an oblong, black cap. Ten musicians were placed in two rows facing each other, 5 on either side of the altar. They were dressed in blue. 'The instruments included large, hollow wooden balls, with an opening like a monstrous mouth and painted red with some gilding, 3 small brass cymbals suspended on two short, parallel sticks, short clarinettes and a peculiar instrument consisting of a bundle of narrow pipes of different lengths with a few holes on the sides and a mouthpiece like that of a trumpet. The music was extremely monotonous, but not unpleasant, as Chinese music often is. At a distance its plaintive, curiously melancholy notes might be taken for a choir of women or boys. When I heard them in the silent evening on my veranda, they created a certain mood. The temple was full of praying Mongolians, Tanguts and Buriats. Wrinkled old men's faces, Mongolian women with bald heads drooping under silver brooches and corals, Tanguts with one shoulder bared, gnarled hands lifted in supplication, backs bowed with age and trouble, tottering steps, deep obeisances, all to the eternal repetition of the same heartrending melancholy tones of the clarinettes. Occasionally the music ceased. The lama raised his hands and murmured a prayer. The congregation raised their hands high above their heads and cast themselves full-length on the ground, touching it with their foreheads, and the music resounded once more. The broad stairs outside were thronged with people. A wide wooden floor had been laid to enable the people to kneel more easily. It was polished smooth by diligent worshippers. It was all reverent, but the curious mixture of Chinese and nomadic people prevented my having the same complete impression as in Tibet or among the Mongolians.

Among the temples I visited Lohu sy with 3 temples built in parallel lines behind each other. In the first Wang shui pusa, approximately lifesize, was seated with a large gilded semicircle behind his head. A great many images were placed in front of him. Four individuals were placed beside him, two on either side. Along each side-wall there were 8 seated gilded idols. Above them, hundreds of niches with small statuettes. Masses of banners, ribbons, bronze urns, silver ornaments, images, emblems etc. The back wall of the second temple was occupied by 3 large seated images. A few smaller images were arranged on the gilded halo behind each of them, forming a frame, as it were, round the main figure. 6 standing images, 3 on either side, formed two short rows in front of the central figure which represents the god Shui-chan-fu. Banners, emblems and other ornaments complete the furnishing. - The third temple contains the god »Abita-fu» in three gilded images, sitting with their backs to each other in a lotus blossom. This group revolves on its axis, while the petals open and close. At the foot of the flower there is first a ring of individuals, about $1 / 2 \mathrm{~m}$ in height, who seem to stretch upwards to the flower; further off in two rows facing the flower a number of similar figures, but all equipped with crowns.

Sientung sy lies very beautifully with 2 parallel temples built at the foot of the hills, on which the Dalai Lama lives. At the end of the temple courtyard a dense mass of temples, stairs, towers etc. climbs a good way up the slope. Among them a tower, about 14 feet high,

and a small temple are noticeable, both of gilded bronze. The shih tan tang temple has the god Bogdo seated in the front building and Mitr in the next.

The enormous suburgan tower that I have mentioned belongs to Tai-yuan sui, in which quarters were set aside for me. The main god is Shih-tia-fui. In the room next to mine stands Wang shui pusa, though this does not prevent it from looking almost like a drawing-room.

There are large outhouses near all the temples, in which pilgrims find excellent quarters and even food. The watchmen of the temples go so far in their politeness as to make tea for the Mongolians in their own way with butter and salt. Naturally, this provides them with a welcome little additional income.

About a dozen Buriats, who have come by rail via Peiping and Paoting-fu, are installed in the temple in which I am living. An enormous lama with a well-fed, calm and selfsatisfied face, forms a striking contrast to the other Buriats, most of whom are bow-legged, broad-shouldered old fellows with enormous heads, prominent cheekbones, small eyes, fleshy noses and large toothless mouths. In fact, their looks are not in their favour. On their first visit to the temple they wore Mongolian dress which suited them splendidly. To-day, however, they were to maintain their incognito before the people and appeared like gentlemen in faded, slouched felt hats, badly made high boots and close-fitting peajacket suits, in which with their bent legs, angular shoulders and growing voices, they made a simply terrible impression. It was not surprising that they were met everywhere by
exclamations of yyang kuizal. One of them, an old Cossack, Badimajeff, used to come and chat with me from time to time. Apparently, he was very pleased to be called "yang kuiza" like other Europeans, for he related the incident with evident self-satisfaction. When he heard that I came from Finland, he exclaimed: „Aha, the government that refused to send soldiers to the Russo-Japanese war\%. He said that the Buriats had taken part in it from conviction. Not to take part, when the Czar called upon them, was tantamount to losing any chance of entering Paradise. He had a clear head and surprised me by his knowledge of geography (considerably better than many a missionary) and his good memory. It was amusing to watch the Buriats. In Yutai Shan and China they felt as much at home as in their own "Zabaikalie" (Transbaikal province). They called li - versts, dollars and cents - roubles and copecks. They looked upon a surplus of dollars, when changing roubles, as pure profit.

Another Russian subject, a traveller from far more distant parts than my friends the Buriats, looked me up. This was A. M. Saranoff, a Torgut from the Caucasus, on his way home via Peiping after living for 7 years in Tibet, or rather, in Lhassa. He had succeeded in crossing the frontier between India and Tibet by giving out that he was a Chinese Torgut. The British made him point out his home on a map and as he managed to satisfy them, they let him go. He was now going home across Siberia without knowing Russian. I introduced him to the Buriats, who promised to look after him. With the help of the Russian consul at Urga his brother had been able to send him money to Lhassa by some Mongolian pilgrims. In view of the enormous distance and the impossibility of exercising any control, it is astonishing to think how safely these primitive means of communication function.

Yutai Shan is said to have been founded during the Han dynasty, though Mongolians only began to immigrate during the time of the Emperor T'ang. There are many legends connected with the place, its mountains, trees, rivers and ancient temples. Unfortunately, I was unable to take notes of them during my short stay. There is a story of a former holy lama »Wu yeh», who was changed into the god of rain and took on the form of a dragon. He seems to play the part of the guardian angel of Yutai Shan and it is generally asserted that he seldom refuses anything he is asked for. He is particularly gracious to the 36 villages of Yutai Shan. If they pray to him for rain, he always hears their prayers. When the Dalai Lama arrived, Wu yeh met him, an attention that was rewarded by the Dalai Lama's going straight up to his temple.

Reception by the Dalai Lama. I must interrupt my description in order to note down the audience granted me by the Dalai Lama, while it is still fresh in my memory. At 2 o'clock a Tibetan came running up and conveyed to me by gestures that I was expected by the great man. While I was shaving and changing my clothes, another one arrived quite out of breath and expressed his, or his master's, impatience. I was just as impatient, but could not possibly dress any faster. Just as I was putting the finishing touches to my toilet, my friend the prince came running towards me, wanting to know what I meant by kecping His Holiness waiting so long. - We started together at a swift pace. Although he was a Tibetan, my companion was obliged to stop once or twice to get his breath and cool himself with a fan. - At the top of the hill a guard of honour was drawn up, con-
sisting of a platoon of Chinese soldiers under the command of an officer, and the official from "Yang wu tu" in full dress. He evidently had some difficulty in hiding his wrath, when I told him that I had only obtained permission for two people to be received, myself and my interpreter. He had an angry, but futile, argument with two men of the Dalai Lama's entourage. As I entered, I caught sight of him making vain efforts to force his way in behind me.

The Dalai Lama was seated on a gilt, thronelike armchair placed on a dais, covered with carpets, along the back wall of a small room that was entered from the side. Under his feet there was a low, wide footstool roughly carved. On the right stood a brightly gilded, low chest of metal, or possibly of wood, embellished with heraldic figures, heads with open maws, paws with sharp claws etc. Two of the walls were decorated with a number of pictures drawn on rolls of paper in loud colours. Two elderly, coarsely built, unarmed Tibetans, with beards and hair sprinkled with grey, stood on either side of the throne below the dais. 'They were dressed in brownish-yellow costumes and wore round, yellow Chinese ceremonial headgear. The old lama Tuo kang pu (in Tibetan Lo sah ten si), on whom I had called yesterday, acted as interpreter from Chinese to Tibetan. He is at the head of the Pe kung sy monastery ( = San-ta-sy), 20 li from Lhassa and about 4,000 li from Gumbum. It has $\mathrm{r}, 000$ lamas. He was dressed in yellow and wore the same kind of yellow Chinese lama cap on his head. Whenever he translated my remarks, he did so bowing low, almost in a whisper and without raising his eyes to the Dalai Lama. The latter was dressed in so-called imperial yellow with light-blue linings to his sleeves and was draped in the traditional red toga of the lamas. His boots, of a Chinese cut, were of yellow felt with a light-blue cord along the seams. He wore no cap. He replied to my profound bow by nodding slightly. After accepting my light-blue "hatak" and presenting me with rather a lovely white one, he started our conversation by asking, what country I came from, how old I was and by what route I had travelled. There was a short pause, after which he asked, with one or two nervous jerks of his body, whether His Majesty had not instructed me to communicate something to him. He awaited the translation of my reply with obvious interest. I was able to say, however, that I had not had an opportunity of waiting upon His Majesty before I left. After a few commonplace questions he brought the talk back again to Russia and asked, if I knew the man who had brought him gifts from His Majesty the Emperor to Takulan. He said that he knew and appreciated the Russian Ambassador "Pun in Peiping. I informed him that Pu was dead. He said he knew this and that M. Korostovets had been appointed as his successor. He was evidently anxious to know, when the latter could be expected to reach Peiping. He begged me to covey his greetings to him and to mention that I had been received at Yutai Shan. At a sign from him a beautiful piece of white silk with Tibetan letters woven into it was brought in and he gave it me with the request that I should present it to His Majesty on his behalf, when I returned. When I asked if I might also convey a message by word of mouth, he replied by enquiring about my rank. When the interpreter conveyed to him that I was a baron and he was told that I intended to leave on the following day, he asked me to stay another day. On the morrow he might, perhaps, be able to mask me for something» (as it was translated). He said that
he was as comfortable at Gumbum and Yutai Shan as in Northern Mongolia, but his heart was in Tibet. Many Tibetans had arrived and all urged him to return to Lhassa, which he might possibly do. He had not yet decided to go to Peiping. I told him that the sympathies of the Russian people were on his side, when he felt obliged to leave his own country. The time had coincided with the serious trouble that Russia had experienced, but now energetic work had been done and the Russian Army was stronger than ever. These sympathies had not been weakened by the lapse of time, and wherever he might be, he could feel sure that Russians, both high and low, watched his footsteps with interest. He listened to my polite speeches with unconcealed satisfaction. Then I had to explain the working of a Browning revolver that I had brought as a present. He laughed, showing all his teeth, when I showed him, how quickly it could be reloaded by putting in 7 fresh cartridges. I apologised for not having brought a better gift, but after two years' travel it was difficult to have any other objects of value than weapons. The times were such that a revolver might at times be of greater use, even to a holy man like himself, than a praying mill. He appeared to relish all this, but he would not allow me to photograph him. He said that he had often been proferred the same request before and had always refused permission. The next time we met, however, I could do so, for now that he had received me, he would always look upon me as a good acquaintance.

At the exit I was pounced upon immediately by Weng, who tried to pump me as to what we had talked about during such a long audience. Of course, I told him all the details! To make doubly sure I saw him get hold of Tchao, but I had given the latter suitable orders in advance.

The Dalai Lama impressed me as a lively man in full possession of his mental and physical faculties. The setting of our talk and the difficulty of carrying on a conversation through the medium of two uneducated interpreters, gave me no opportunity of a more interesting exchange of views. From the whole staging of my reception it was sufficiently evident that his love of China and her suzerainty was only moderate. Twice during our conversation he gave orders to see if anyone was eavesdropping behind the curtain over the door. It looked as though a good deal was left unsaid in his remarks. At all events he does not look like a man resigned to play the part the Chinese Government wishes him to, but rather like one who is only waiting for an opportunity of confusing his adversary. He is of medium height, thin and with some nervousness in his features, which he seems anxious to hide. His gaze wanders, especially when talking. His step is lively. There are slight hollows in the skin of his face, which are supposed to be pock-marks.

It is, of course, difficult to form a clear opinion of the influence that the Dalai Lama exercises over Buddhists, Tibetans, Mongols and Buriats. Large crowds of worshippers wend their way daily with gifts to Yutai Shan. Owing to the situation of the place the influx of one nationality is increased at the expense of another. In Northern Mongolia masses of Buriats made pilgrimages to him, here their place and the place of Northern Mongolian tribes is taken by Mongols from Ordos, Sunnites and other western Mongolian tribes. At Gumbum many Tibetans visited him, but only a few of them come here. I was told that the number of worshippers was approximately as follows:

| at Takulan | at Ta Ehr sui | at Yutai Shan |  |
| :---: | :---: | :---: | :---: |
| 1,500 Mongols and Buriats | 3,0oo Tibetans <br> 70-8o Mongols | $\left.\begin{array}{l}\text { 2,000-2,500 Mongols } \\ 70-80 \text { Tibetans .... }\end{array}\right\}$ | in winter |
| 10- 20 Tibetans | I-2,0oo Tibetans | I-I,500 Mongols | in summer |
| -5,000 altog |  | IO-20 Tibetans .. |  |

The Dalai Lama's old officiating lama said that the number of visitors was $\mathbf{1 0 - 2 0 , 0 0 0}$ a month, which is an undoubted exaggeration and rather indicates that the actual number does not satisfy the Dalai Lama and his supporters. It was also mentioned with special satisfaction that a very large number of Tibetans had arrived recently. This was my acquaintance the prince from Si -an-fu with his companions, amounting to barely a hundred at most.

I called on the old lama once more in order to obtain written permission to visit Lhassa in the future, but the Dalai Lama sent me a reply that he could not fulfil my request, as it might give rise to dissatisfaction or even disturbances in Tibet, but that he would give me permission to visit him in Lhassa, if, on another journey in Asia, I would send a messenger (!) with a request. - Later in the evening more gifts from the Dalai Lama were brought to me: 28 yards of very narrow, reddish-brown Tibetan cloth, 5 bundles of incense sticks and a white "hatak», this time not of silk. At the same time he sent word that he was unable to end his letter, as he had not received an answer that he was expecting. Evidently, he had changed his mind. He asked me to leave the cartridges that I had promised him, with a Buriat lama who lived in Peiping.

From Yutai Shan the road to Tatung fu led at first along the same gorge that we June 2 followed when we arrived. After $2 \mathrm{I} / 2$ miles we left it and took a WNW direction. The Mukat road led past a small temple, painted red, with a tall tower, up a very stony mountain slope. village. The road zigzagged very much. It was steep and very stony, but on the whole fairly tolerable. It was said to have been repaired in consequence of the visit of the Dalai Lama. After two hours' journey, mostly on foot, we reached the Sydza liang pass, a long saddle between slightly higher mountains. Barometer No. I indicated 567.7. The distance from Yutai Shan was said to be 20 li. An old, very dilapidated monastery, Ta sui yuen or Suitzu wu, lies high up on the pass. It has a tall tower of many storeys, faced with tiles that sparkle in the sun, blue with small yellow images in bas relief. On the peak some large firtrees were growing and other plants crept along the whole of the half-ruined tower. The monastery was supposed to have been built by the wife of the Emperor Wan-li. There was a large bronze lion of beautiful workmanship in the tower, supporting an image of gilded clay seated in a lotus blossom. The back wall of the main building was occupied by 3 large seated "Pi-lu-fun.

The mountain we had crossed seemed to go in a NW-SE direction. Further to the W there were two long mountains of approximately the same height as ours and much further off a considerably higher mountain range going approximately in a $\mathrm{S}-\mathrm{N}$ direction. We descended along a small gorge to the WNW. The road was not nearly so steep, but


The temple tower in the Sydza liang pass in the neighbourhnod of Yutai Shan.
quite as stony and also quite passable after the recent repairs. - After $5 \mathrm{li}(25$ li) the gorge debouched into a slightly larger one going in a NE--SW direction. Here lay the village of Sichiachuang with 20 houses. The surrounding slopes and stony valleys contained a few scattered, poor strips of field, all enclosed by low stone walls. - We continued along this new gorge for $12 / 3$ miles to the SW, when it debouched into another, considerably larger, but equally stony. After another $12 / 3$ miles we came to the village of Tsha-pu with 20 houses. The houses were few and miserable, the village street a cesspool, along which we proceeded by hopping from one stone to the next. The distance from Yutai Shan was cstimated at 30 li .

The next village we passed was Taiku with 5 houses. The mountains were denuded, the ridges jagged and many of the peaks reached a good height. - The ground nothing but stones. We passed a great many small spurs of rock that made the road very rough and constantly crossed the little river in the valley. - We passed a small village, Huling, with 7 houses, a little beyond another small one containing a miao. After 45 li Yung fanku with 40 houses. 2 li beyond lay the village of Langchia chuan-lzu with 8 houses. After 60 li Yengtutsung with 50 houses in two groups on either side of a gorge opening up from the SW. This, too, contributed a sea of stones that formed an appreciable spur of rock at its mouth. The road took us up and down over such spurs. After 75 li we came upon a village at a place where the gorge made a bend to the north for a short distance.


Immediately after, the direction was again WNW. The main course of the day was WNW and NW, only for short distances NNW and rarely N and NE. After 80 li the village of Nanmutang with 5 houses, and 85 li the village of Maka with 30 houses and at 89 li the village of Mukatsun with 15 . - Towards the end of the day poppy fields became common. - Some had not yet begun to blossom. - We met a good many. Mongol pilgrims on their way to Yutai Shan with bundles on their backs. - Between 5 and 6 o'clock there was a thunderstorm with heavy rain.

We continued to the NNW along the stony gorge. On a projecting spur of rock on the left that tried to close the gorge, as it were, a group of buildings with memorial gates, temples etc., had been placed picturesquely. These were the first houses of the village of Sianglungku, the other 1,800 houses of which lay on the other side of the spur, 2 li from Mukatsun. Suddenly we found ourselves in an open plain, about 7 miles wide, that, as it were, formed a huge passage between two enormous mountain ranges, the one we had recently crossed and another lying further W . The plain was richly cultivated and had many shady villages and was intersected by the road in a NW direction. Poppy fields were very numerous and their gorgeous colours aroused our admiration.

After 14 li we reached the river Futo (Puto, Suto) ho close to the village of Hsiao Chuantzu with 6 houses. At this place it was 63 yards wide, about knee-deep and flowed in an


Girinding and cleaning corn
in the village of Tsha-pu
in the neighbourhood of Yutai Shan.

ENE—WSW direction. After 17 li the village of Hsing wan with 100 houses. There was a striking difference between the two banks of the river. In contrast to the left bank, the right bank was stony, in parts very high and very slightly cultivated. After 20 li the village of Kantai with 100 houses. Just beyond it there was a sunken road that led us through a long eminence of coarse sand and stone running parallel to the mountains and river. It ended in a stony river bed that came from the mountains and ran southward. The road led us up this in a northerly direction. Appreciable hills extended on either side, their nearest slopes being cultivated and forming terraces. Soon the road turned NE. - After 37 li Liudiaku, with 5 or 6 houses, on a slope of the mountains. From this place the course of the road was NNW and the ground ascended more and more steeply. The bottom of the gorge was nothing but stones that became larger, the higher we climbed. A small water-channel flowed between the stones. On either side of the narrow valley we had already seen for some time steep mountains, in which granite alternated here and there with a grassy fold. A couple of small herds of goats were grazing high up on the slopes.

We met a considerable number of Mongols in the gorge, travelling, in small groups either on foot or on horseback with their savings, to the Dalai Lama. Here in the wild gorge, without the crowd of blue-clad Chinese, at Yutai Shan, you have the impression of being once more among nomads. The golden-yellow dress of the lamas, red and dirty grey of the men and blue of the women, looked picturesque against the grey rock of the mountains. Their horses were small, but broad, deep-chested and, above all, surefooted. - The road was very rough. It crept along ledges, for long distances on the slippery wall of rock, the surface of which was at times quite level, at others very uneven. It is hard to say which was preferable. In many places the road was very steep.


After 45 li we reached the Hunsuiling pass - a slight depression between two small hills of sand and some small stones. Barometer No. I 608.3. The main direction during the ascent was NNW. - A mountain could be seen quite close to the NW from the pass, a smaller one to the NE. We followed the slightly dipping ground between them to the N, consisting of sand mixed with stones. On the left we passed the village of Hunsuiling with $4^{0}$ houses. In front of us there was a large mountain range. We reached a bed of stones running NNW at its foot, a couple of li from the pass. We followed this, keeping the mountain range just mentioned on our right and a slightly lower one on our left. The dip in the ground was gentle. On the slope on the right we caught sight of a village and on the left we passed a couple of hovels at the mouth of a side-gorge. There were only a few side-gorges visible, all stony. The further we went, the rougher grew the road. Stone upon stone, not a level spot large enough for a horse's hoof. The mountains were steep, inaccessible and high. For the greater part grey granite was visible, interrupted here and there by grass. We frequently crossed a small river.

After 75 li we reached the village of Huiku with 15 houses at the mouth of the gorge. Before us a wide plain spread out, open to the NNE, sparsely populated and with tall trees growing on it, that looked like palms at a distance; poplars and willows with bare trunks and thick crowns grew in the part that was nearest to us. Far in front more large mountains, more or less parallel to those we had just crossed. Here the direction of these was ENE. Far off to the NE, too, we saw a mountain range going in a NE, direction. For a time the road proceeded along the foot of the mountains. From their line another mountain projected a good way into the valley, also at a considerable distance. - After 80 li the village of Yung Nan yu with 300 houses. - Gaolyan, millet, tchumiza, jumi (similar to wheat), maize, peas, potatoes and opium are grown. Average crop to fold.

June goth. The journey across the flat plain today was extremely monotonous. The course was Tayukou NNE at first. Weather glorious. Drops of yesterday's rain sparkled in the sun on the fields. village. At Yung Nan yu I said goodbye to my companions of the last two days, 3 Mongols and an unmarried Mongol woman, returning like myself from Yutai Shan. One of the men, a lama of 30 years of age, T'ang Lobsang from Chenchuen (Chouhua sui) in Ordos (Otok wang), was unusually loquacious and amused me very much. We parted the best of friends. Even the woman appeared in very scanty negligé, when I bade them farewell at $5 \mathrm{a} . \mathrm{m}$., and said a few words with outstretched hands.

We passed Hochow chuan-tzu with 60 houses and Huthuan Chang with the same number after 10 and 20 li . The trees come to an end after the latter village and the plain takes on the appearance of a steppe. After crossing a river $20-30$ feet wide and 0.25 m deep, we came to Shanyin hsien ( 28 li ), a wretched little district town with a population of not much more than 200 tja. In the $S$ and SW large masses of sand, on which some thin grass was growing, were piled up against the ruined wall. Here nothing had been done in regard to opium smoking, but it would scarcely be necessary. The land is too barren, no opium is grown and the poverty-stricken population only possesses a small number of smokers.

The ground in front of us was in the shape of large and small mounds. At a distance it might be mistaken for a cemetery which takes on the appearance, the nearer you approach it, of one of those ruined villages that are so often seen in the interior of Northern China. A small village lies among the mounds of earth and fully a dozen furnaces, in which salt is burnt. The earth is collected in large, rectangular hollows and is then saturated with water. This is led through a pipe at the bottom of the hollow into another open hole. From this the dark-brown and very saliferous water is raised to one of the furnaces, where it is boiled in a pan until the salt separates and is fished up in baskets. Some of the salt is quite white and of good quality, but the greater part is darker in colour. - Two similar salt works, one of the same size, the other rather larger, are said to exist in the immediate neighbourhood. The work is only done between the $4^{\text {th }}$ and 5 th and the 7 th and 8 th months. In winter the people have no occupation. With true Chinese indolence they live on what they earn in the summer months. A furnace of $2-3$ cauldrons produces $60-80$ din of salt daily at 19 cash on the spot. Coal from the mountains in the W is used as fuel. The profit, excluding labour is said to be $5-6$ cash per din. A tax of 1,980 cash is levied from each workman. - The fields, that were poor at the beginning of the day, ceased altogether immediately beyond Shanyin hsien.

After $4^{1}$ li we reached the broad bed of the Sangkan ho. Here its course was ENEWSW with a bed not much lower than the rest of the ground, over 500 yards wide with a watercourse of almost roo yards in width, the water coming up to the saddle. The bottom was firm and the current in a narrow channel fairly swift. At high water, traffic is suspended for $3-5$ days. Some distance from the road there is a curious old hexagonal column, about the height of a man, with a ledge halfway up. Both above and below the ledge it is ornamented with images in bes relief.

After 48 li Lu Chafing; after $5^{8}$ li Tai yo with ${ }_{5} 50$ houses. Our course was now N
and the sky was covered with clouds. A squall with almost the force of a hurricane had carried masses of sand from the north and piled them up like a wall. Fine rain beat in our faces. - In the NE a low ridge-like hill could be seen running NE-SW, which completely obliterated the horizon that had been open to the N . - We passed a couple of small Mongol camps with low, blue tents. Strong, saddled horses and a couple of camels that looked pitiful on account of their losing their meagre coat of hair at this time of the year, were grazing close by. Weatherbeaten old faces, blackened by the sun, red and yellow: garments, curious headgear, everything formed a glaring contrast to the Chinese surrounding.

After 66 li the village of Siljutsun with 100 houses; 69 li Ehrpu with 20. One li further on we crossed a river, about 30 feet wide, of a slight depth, which made a bend in the form of an $S$ here and had practically no current. It flowed from the WSW to the ENE. After 71 li the village of Chenchiapu with 200 houses. Just beyond it we crossed the long ridge I have mentioned, which proved to be quite narrow. It consisted of stony sand, possibly diluted with soft earth. After 73 li the village of Huang haling with 15 houses. After 81 li Hing wang chung with 90 houses and at 88 li diu wang chung with 300 houses. From this place we travelled for a time by a sunken road of slight depth. The ground began to rise slightly and became lightly mixed with stones. Both sand and logs were visible. We were now very near the mountains on the opposite side of the plain. This was a connected chain of appreciable size, though not of imposing height. At a distance it looked like grey granite lying in a multitude of folds.

After 93 li Ehrpu with 17 houses and 103 li Ta yo kou with 100 . Here we halted for the night. My serai was quite comfortable, especially when an armchair was brought from an adjacent temple, and I was able to write, using a packing-case as a table. Coal is mined in the adjacent mountains. Stocks of it can be seen in several yards. Tchumiza, millet, shuza (similar to millet), gaolyan, black peas and wheat are grown. Average crop 4-5 fold.

We started this morning with a stormy wind in our faces. Almost immediately after leaving the village we entered a river bed of slightly stony sand, up which we rode in a WNW direction. - The coal mines are said to be only a few li from the village near Utja yo. I did not visit them, however. There are 7 or 8 coal mines (according to other statements 3 ) employing about too workmen each. Some of the shafts are said to be as much as 2 li in depth. They are worked mostly in the winter for two months. During the summer only a few workmen are engaged in mining. The daily production of each mine is about 200 thou of 80 djin (according to others 100 din a day). It is sold at 1 cash per djin. The mines supply the neighbourhood as far as Ning yuan ting, Tatung fur, Taichow and Ningyu fug. The coal mined in the winter is carted in the summer.

The ground rose very slightly. There was practically no water to be seen. The river bed lay between conglomerate mountains, partly covered with grass. Further on, the valley became a little more stony and the surface of the rock was frequently denuded, grey and in slanting layers. The direction changed to NNW. After io li the village
of Utja yao with 1,000 houses in a long row between the river bed and the mountains on the left. Pottery of corase quality was being baked in 23 furnaces. The clay is taken from the mountains, which are divided here by a gorge on the left. Each furnace was said to produce 6-7,000 pots monthly. The walls round many of the poorer houses were made of broken or defective pots. There was a "matui» post here. The soldier, whom the obliging officer at Yutai Shan had given me, left me here, but another, with his horse saddled, was waiting to accompany me. To judge by his appearance and manners, he promised to be as capable as his predecessor. The houses in the village were dilapidated and the inhabitants looked poor. There was no tillage visible.

We passed the villages of Hwangchia tien with $50-60$ houses, Sui-shih-li-chuan with 40 and Changchia tien with $30-40$ after 18,25 and 32 li . The mountains began to give way to large hills with gentle slopes. After 34 li K'tuo tien with 15 houses. We had reached the beginning of the river bed and rode in a NW direction up to the village of Mathoutu with ${ }_{150}$ houses, situated on a slight eminence ( 39 li ). Traffic was lively. We met many arbahs, small caravans and litters carried by mules. A young Chinese, sitting upright and stiff and dressed in khaki, was seated in one of them. At the sight of me he rose, saluted in military fashion and called: „Good morning, sirm. I asked who he was and was told that he was a master in a civilian school at Tai-yuan-fu.

On the other side of the small hill the ground dipped considerably, but crept immediately afterwards up to another long stretch of hills. Further to the SW a dry, stony water-bed ran between the hills. As we followed it with our eyes, we could see more and more hills rising behind each other in the far distance. We went on to the NW and after $4_{1}$ li reached Tapu with 10 houses. Beyond it the road led up a hill of löss (barometer No.i 621.3). The view was lovely. We let our gaze wander with pleasure from a valley to the nearest ridge of hills in the W , similar to the one on which we stood, and thence to the next and so on until at last it was arrested by a dark line of mountains far off. In the $N$ there was a chain of mountains considerably nearer going in a NE-SW direction. After 51 li Weichiaku with 40 houses, after 56 li Mahwanghu with 30 at the bottom of a small valley. In general the difference in altitude between the valleys and hills we crossed was not great and the slopes were very gentle. With the exception of the mountains in the N and far off in the W , the landscape had the character of an uneven plain. A little grass was growing on the slopes and their lower parts were cultivated. We soon followed a stony water-bed again. After a couple of li it turned to the NNE, while we continued up another hill. About a dozen li lower down towards the stony bed we caught sight of the regular wall of Tso wei hsien (according to the local pronunciation), Tsoyün hsien being the correct name. Again we crossed a small valley with a tiny watercourse going in a NNE-SSW direction and a very long stretch of hills of löss (barometer No.i 630.7). - Jumi (like wheat), tchingmi (black wheat, triangular?), tchumiza, shuza (like millet), millet, wheat, huma (red kunsjut) and potatoes are grown. Average crop 2 fold (?). Sowing is done during the 2 nd month. Snow from the roth to the 12 th month, 6-7 inches deep; rain from the 4 th to the 8 th month, but insufficient; $W$ and $E$ burans frequent in the spring. - i pyn of matui. - The whole village owns about 60 head of cattle, 30 horses and mules, 20 donkeys and 200 sheep.

The landscape we passed through on to-day's 60 li was of the same character as yester- July 2 nd. day. Long, gentle slopes and very slightly marked valleys, occasionally at the bottom Soping. a slight water-channel, often inclined to be marshy. Two or three conical hills raised their pointed peaks not far from the road independently of the surrounding long ridges. Here and there a hill was surmounted by the ruins of a tuntai tower. They were said to have been built at the same time as the Great Chinese Wall. A distinct dark chain of mountains still extended in the N and NE at an angle to the road.

The villages were small and did not look prosperous. Clay was the only building material apart from the necessary beams and poles. There were few tilled fields, at the beginning of the journey practically none. No woods. Even in the villages a solitary tree was an exception. The direction of the road was NW and NNW, mostly the latter. After 5 li Hwa tsun with $70-80$ houses, 15 li Liu chang pu with 10 and at 20 li Santsaku with 10. Soon after the road began to climb a slightly more pronounced chain of large, dunelike hills, coming from the mountains in the NE and N and running in a SSW direction.

At the village of Hwantupu ( 25 li ) with 40 houses we reached the crest of the chain. Barometer No. I 624.9. The village was built in two groups on either side of the ruins of the brick wall of a fortified village. The road descended along a valley running NW. After 35 li the village of Sachiapu with 15 houses and 40 li Hwantualia with 15 . Here, too, the ruins of a village wall were visible. Both were said to have been built during the reign of the Emperor Wan Te. ro li beyond we reached a wider valley with some scattered villages embedded in clumps of shady trees. Further west, on the other side of the valley, another chain rose up parallel to the one we had crossed. In the N the wall of Soping was visible. We reached it after covering another so li.

On the way we met another 2 or 3 long processions of Mongol pilgrims, both men and women, a variegated crowd, some with packs tied to their backs, others riding donkeys, mules, horses and camels. Here and there we passed arbahs carrying coal from the neighbourhood of Tsoyüng hsien. It is sold at Soping at a little over 2 cash per djin. I was told that coal was carted from there as far as Kweihwa ting.

Soping is supposed to have been called Yu pinfu originally and the town is still called so by a large part of the population. It stands on the plain not far from a small, long hill rising in the NE. The wall is going to ruin. Storms have swept such masses of sand and carth, now covered with grass, against its E and N parts that it is easy to walk up them. Soping is another of the places where a great deal of innocent blood was shed during the Boxer rising. i3 Europeans obeyed the order of the local Manchurian mandarin to proceed to Peiping under military escort. They had scarcely got outside the gates of the town before they were turned out of their carts and stoned to death by the crowd and the military escort. 10 Swedes and 3 Americans (i a child) perished here. Scared by the European guns, which unfortunately did not get to this place, the Chinese authorities made haste to pretend to bury those of the 13 bodies that could be found, outside the E gate. Blocks of stone with Chinese inscriptions have been put up over the graves. Their devoted, noble work and horrible death deserved an inscription in their own language. The Chinese names are unrecognisable. If I recollect rightly, one of them, whose name was Larsson, was dubbed
"Leimu" and so on. It is strange that the instigator of this infamous crime was allowed to remain at his post as head of the Manchurian garrison until last year, when he was recalled for other reasons. - At present two young Swedish missionaries are stationed at Soping.

The town is the seat of a Fu, whose district consists of Ju-u hsien (Soping), Ping lu, Tsoyün and Sochow. The population of the town is said to be $2,700 \mathrm{tja}$ (of whom 130-140 tja of Dungans), a figure that does not seem too low, as the town is so empty and deserted. I saw a good many young Chinese women in the streets, all heavily painted. Their hair was done in a very coquettish manner with flowers and the usual finery, but the usual bunch of hair was tied at one side of their heads.

The annual tax of the hsien district amounts to 3,400 taels. It is said to be divided as follows:

|  |  | annual crop | cattle | horses | donkeys | sheep | yield |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SE | 1,300 tja | 13,000 tan | 700 | $35^{\circ}$ | 1,000 | 2,500 | 2-4 fold |
| S | 2,100 " | 25,000 " | 1,350 | 700 | 2000, | 3,500 | 4-6 |
| E | 1,500 " | 1,700 " | 700 | $35^{\circ}$ | 1,000 | 2,500 | 1 -2 |
| W | 640 " | 8,000 " | 500 | 200 | 650 | 1,500 | 2-4 |
| N | 1,500 " | 20,000 | 650 | 350 | 1,500 | 2,500 | 2-4 |

Jumi, tchingmi (black wheat?), peas, tchumiza, millet, shuza (like millet), red kunsjut, mustard, hemp and some opium are grown. Average crop 3-4 fold. Want of rain is complained of generally. The land lies fallow for 2 or 3 years and is then worked for about a year. - Snow from the 9 th to the 4 th month, up to 14 inches in depth. Westerly burans are common in spring.

The following schools have been opened in the town: i kao teng hsiao hsio tang, i liang teng hsiao hsio tang, i hsiao hsio tang and i ming hsiao hsio tang. Besides, i hsiao hsio tang has been built for the Manchurian population out of funds deducted from the wages of the Manchurians.

The garrison consists of I pyn of matui of the Sahoku tchi. - The Manchurians do not live in a separate part of the town, but among the Chinese. They consist of 8 tchi, but of only 47 men each. The officers are: i chengshu-u, 4 fang $u, 4$ hsiao tchi hsio, 8 kuanchienlang.

Only 150 men are being trained for the ludziun. Soldiers from Tatung act as instructors. - The Dzian Dziun had 8o rifles with cocks distributed last year, but they were so useless that they could not even be used for target practice. It is proposed to buy Mauser repeater rifles. The necessary funds are to be deducted from the men's pay (o.r taels monthly).

Owing to the want of rain only a little opium is grown. Proclamations have been issued regarding the restriction of opium growing, but the restrictions remain inoperative. Last year the entire sale of opium was confined to a shop belonging to the State. This year private shops have again been allowed to carry on such trade.

The road continued northward. Just outside the N gate of the town we had on our right the same small hill that almost came up to the NE corner of the wall. A chain of hills extended in the $W$ on a slant to the road. On the right, behind the small hill I have men-
fioned, there was another, higher and also at an angle to the road, which formed a gate, as it were, with the western hill further north, through which the Hun ho, flowing on the left of the road, made its way. More hills were visible further north through this gap.

After 8 li the village of Main ho with 50 houses and the ruins of a fortified village. We continued along the river bed, crossing it several times. Its width was $20-35$ feet, its depth 0.15 m , with a firm bottom. After 20 li Shahuko with 2,000 tja and a paotai at the point on the river where it flowed through the Great Wall, the direction of which was NE-SW at this place. On the opposite bank the ruins of a stone bridge were visible, 10 arches of it still remaining. In the next gorge as well as in the one we passed the day before yesterday at the village of Yuchia yao, there is an old road along the slope of the mountain with stone bridges and galleries, partly collapsed. A road is said to lead not far from Shahuko via Sintienza to a place on the Hwang ho and thence to Saratsi ting. After 35 li we left the valley. The road led over a slight rise in the ground on the right down into another very narrow valley between gentle, but distinct hills. A very small tributary of the Hun ho flowed at the bottom of the valley. After 40 li Tsa ha ying with 40 houses in a slightly broader part of the valley. Here we came out of the valley. The road took us over grassy hills of soft earth on the left, at first to the N , but soon after to the NNW. - After 45 li Tsao jouza. - The ground still ascended for a time. We crossed a fairly large ridge of soft earth. The descent by a sunken road was rather steep at times. - After 60 li Hwangchia jouza with 30 houses on the slope of the ridge. This was succeeded by a large, but not deep valley, cultivated throughout in contrast to the hills, where there was little tillage.

After 70 li we reached Koufa jouza on the other side of a small river. The ground again ascended slightly. After $71-72$ li the road led into another gorge with a small watercourse. The mountains were of sand, stone and rock, but not large. At 75 li Yung singo with 7-8oo houses. We followed the left bank that ran into the same valley further south over a slight hill of löss. About a dozen villages could be seen in the well-tilled and fairly extensive valley, the opposite side of which was bounded by a considerable chain of mountains. Straight in front of us, approximately in the NW, we noticed a very distinct saddle-shaped valley in the mountains, on the left of which their dominating peaks rose. - Nin yuan, a large village without walls, lay in the valley, 3-4 li from the road. I was told that this was Nin yuan ting and that there was no other Nin yuan. On the Russian 40 verst map, however, Nin yuan ting is marked as a day's journey from the road.

We proceeded for a time along the bottom of the stony river bed, dry at present, that flows past Nin yuan in a NW direction towards the saddle-shaped valley. After 8ı li Kan-chiapeng-tzu with 30 houses on the very river bed and at 86 li Mongan-shihlu, the 30 houses of which were spread out along the road for a distance of about 5 li . We now came to the mountains that were steep on either side, but of no great height. They consisted of sand, stone and rock with a little grass here and there. At 91 li we passed a few houses. The rise in the ground towards the saddle-shaped valley was now very pronounced. The stony bed had given way to a small cleft next to the road. - We crossed the saddle by a sunken road. 93 li. Barometer No. I 6i6.9. - After 100 li Tola su with 20 houses in a valley
of 230 yards in width with a very slight fall. A small watercourse wound at its bottom. Here and there the gorge grew very narrow and stony, squeezed between steep granite spurs of the mountains. A couple of li beyond it grows wider again. The road was now less stony and the mountains less rocky. - After II 5 li the village of Jankoujouza with 30 houses.

July $4^{\text {th }}$. We continued our journey along the same valley. After 5 li the village of Vlatchangpe Kweihwa ting. with ${ }_{5} 5$ houses. The mountains were low, the road led along a stony watercourse. After 20 li Hi ku ming with $70-80$ houses at the mouth of the gorge. Before us there was a large cultivated plain with many groups of light-grey villages. In the S and SW it was entirely open, in the N a very considerable part of the mountain range we had recently crossed still projected into it. In the present conditions, with the air full of particles of dust, to which I was well accustomed, we could only see the faint outlines of an enormous chain of mountains running from the N to the W , where it disappeared entirely in the distance. - We met 160 horses that were being driven by 3 Chinese to be sold at Yutai Shan. They were powerfully built, short Mongolian horses.

We passed Singinza with 50 houses, Shapno with 200 , Htempan with $70-80$ and Yang keipan with 70 after 30,4048 and 58 li . In the last we stopped for dinner. Here the average crop is $4-5$ fold. The sarais in Northern Shensi are mostly built with long, barracklike rooms that often take up a whole building. Two long "kings" extend across the room, provided with a great many small, low tables, the only thing a traveller can reasonably expect. A small room is a rarity and is usually inhabited. It is only after long and patient negotiation that you can obtain one, and often you have to wander from one village to another before you find a corner in which you are not obliged to share the vermin with someone else.

The tillage on the land, which still remained level, grew scarcer. Large stretches lay unused, covered with poor grass. There were practically no villages in this neighbourhood. - The mountain range that extended from the NE to the SW and bounded the plain was now clearly visible with its imposing dark mass and very rough outlines. After 88 li we crossed a dry river bed, Ta ho. Its depth was 42 inches in some places. It was said to be filled with water in spring and autumn, when a bridge is thrown across. On the river the village of Tho ho with 40 houses.

Drenched by heavy rain accompanied by a SW squall of such severity that it almost upset both horse and rider we crossed after 98 li a river flowing in two arms, 35 and 40 feet wide and of a depth of 0.25 and 0.1 m . When these rivers rise, traffic is said to be interrupted for 2 days at most. The village of Siaoho ho with 30 houses lies on the river. Many villages were visible again, especially towards the mountains.

We reached the suburb of Kweihwa ting after 108 li without seeing a glimpse of the town, which is hidden among shady trees by the surrounding suburbs. - We were met by Hey, who was worn out by his vain efforts to discover a decent sarai. As nothing else was to be had, he had taken two microscopic rooms that formed a separate shed in a narrow backyard. They were so low that a slight heat from the sun was sufficient to raise their termperature almost to boiling point. The sarai is used chiefly by merchants from Sinkiang, who pass through with their goods. The hosts, three elderly men from Tientsin, came in turn to
take a good look at me. Having replied to exactly the same intelligent questions in no less an intelligent manner and with a fixed smile, I was delighted to find myself alone and able to get down to my work.

This is the first Chinese town I have visited, in which the wall that encloses it does not attract attention more than anything else. When you arrive, you do not see it at all, and in walking through the town it would be easy not to notice it, if the gates, through which the streets pass, did not betray its presence. When this little town was founded, it was certainly not anticipated to what extent the place would grow some day. Now it has expanded in all directions, but mainly to the south, though also to a considerable extent to the north. The wall is obviously no longer intended for defence, being compressed between buildings that have grown on to it. You are allowed to walk on the wall freely. There are no barracks inside the town and even the yamen of the officials, such as the Taotai's, are outside. The part N of the town is particularly charming with a very convex old stone bridge, a small river, many shady trees and open grassy meadows. The S part is more townlike, houses close to each other, narrow, dusty streets, crooked lanes etc. This is the principal centre for trade.

The population of the town is said to be about $(5,300) 7-10,000 \mathrm{tja}$, of which about (2,000) 3,000 are Dungans, according to another source 100,000 and $20-30,000$, which seems greatly exaggerated. The number of shops is about 500. Approximately $4^{0}$ stock goods from Eastern China and from abroad, the rest of the trade consists in the sale of local products. 17 or 18 moneychangers seem to find enough business to keep them alive. About a dozen Chinese agents of business houses (mostly foreign) in Eastern China are settled here to keep an eye on the transport of their goods. About ten large sarais for storing transit goods are owned by citizens of Tientsin. In general Tientsin is well represente in the local business world.

Local trade is considerable in comparison with other places in Northern Shensi and the town is a storehouse for goods intended for the surrounding parts of Mongolia, but the actual importance of Kweihwa ting lies in the large transit traffic between Peiping and Tientsin on the one hand and Northern Kan Lu and Sinkiang on the other, especially Kucheng. According to the information I received, the annual quantity of goods passing through Kweihwa ting is as follows:
Coarse cotton cloth from Shantung and other goods from Eastern China


About 8oo,000 taels of silver pass annually from Sinkiang (4 times 200,000 taels). About 2,800,00o taels are said to be remitted in drafts on banking houses in Eastern China. - I have no information about the imports of goods from Sinkiang and Lanchow, nor do they sem likely to be of any great importance from either place, but from Northern Kan Lu they are as follows:
from Sining and Hochow abl. 1,000,000 tan of wool - I tan of wool $12-18$ taels in


Russian cloth and other goods are said to be brought only when no cargo can be found for returning camels.

As regards local industry I ought to mention a small weaving plant established about a year ago, probably more as a training school than as a business. 70 - 80 half-grown boys are employed in a crowded and unsuitable building. The output is of good quality, but does not amount monthly to more than about 300 m of coarse cotton cloth and some djins of broad, strong bands for belts. There are a shop and a tailor's shop at the weaving mill. The latter employs some Chinese in manufacturing uniforms for the garrison by machinery. Trade is dull and prices are, at any rate for the present, higher than Japanese and foreign prices, although the goods are of stronger quality. Other local manufacture is the same as elsewhere in Northern China. The manufacture of Chinese and Mongolian saddles, boots, carpets of small size and good quality intended for saddles and Mongolian seats, and Buddha images of coarse and simple workmanship seem to be the local seecialitics. The impanj of the local infantry ying is situated on the N outskirts of the town.

For a very long time Chinese settlement of this part of Mongolia has been proceeding from the Great Wall to the W and N. In recent years, however, it has increased considerably and has been given special attention by the Government. 6 or 7 years ago the present Dian Dziun was sent here as a commissary to organise the problem of settlement. A special Government department was established under the name of „Könn wu tu» for administering the land of the Mongolians set aside for settlement. At present it has sub-administrations in the following places: Tashötai about roo li NW of Bautu; Kwang hang si about roo li to the W of the latter; I sin chang about 80 li to the W of Kwang hens si; Wi yang (Oui yang ti) in Alashan not far from Santo ho and W of Ula ho; Heilat N of Kweihwa ting on the other side of the mountains; and Hsytuchow about go li NW of the same town: The figures and the detailed boundaries that were communicated to me are, of course, not reliable. Nobody,
except those in the service of the "Könn wu tu*, is conversant with the details in reality, and no information can be obtained from them, especially now that they are perturbed by an audit prescribed by the Emperor, numerous changes of staff etc. I quote them, however, as they might possibly be supplemented or might themselves supplement future information.

In the district of the Shihtzu wang, about 150 li NNW of Kweihwa ting, an area of about $180 \mathrm{li} \mathrm{E}-\mathrm{W}$ and $20 \mathrm{li} \mathrm{N}-\mathrm{S}$ is being settled. It is said to extend from the Hsytuchow lamasery in the $W$ to the Shihtzu wang residence in the $E$. It is said to have been populated by Chinese for a long time, but has been settled more energetically in recent years with people from Chihli, Shantung and Honan.

In the district of the Djungar wang in Ordos and probably, too, in the districts of some of the other 7 princes of Ordos, seeing that the settlement is said to extend to Yulin fu, Chinese leased large areas in the past, paying 200 cash per 100 mou per year. All this, as well as all the land cultivated by Mongols, is now said to have been surveyed and 3.7 taels per mou to have been extorted from the tenants as a purchase price. Mongols told me that not more than $0.5-0.6$ was paid per mou, but that the money remained in the Dzian Dziun's pocket. At Chentung (Tja ho ti area) in the Djungar wang's possessions a ting kuan was installed last year.

The "Hothau" area NW of Bautu (evidently also W and SW) extends beyond the mountains (probably the nearest?) to Santo ho in the W (?). It is said to be about goo li long and 50 wide. It is said to belong to the possessions of the 3 rd $\#$ kungjen, Tung-si and Tsung kung, but is now governed by the Yu yuan (Bautu) ting. The land is supposed to be well provided with water and very fertile. Formerly an annual rent of 1 tael per 100 mou was paid. Now 3.7 taels have been taken from the tenants as a purchase price and they continue to pay 0.73 taels per 100 mou annually for making use of the land.

The examples I have quoted should be taken as illustrating, though by no means exhausting, the settlement problem as a whole. In general it seems to affect both banks of the Hwang ho in a greater or lesser degree from Santo ho in the $W$ to the Great Chinese Wall in the E, besides an area of Ordos along the Great Wall to the SW, if it can really be considered that settlement is being carried on as far as Yulin fu. In addition it embraces a fairly large area on the other side of the mountains N of Kweihwa ting. Here an area is said to have been thrown open to applicants among the Manchurians of Kweihwa ting. Of about 20 families who wished to avail themselves of the opportunity about half are reported to have perished in consequence of snowstorms. The rest gave up the attempt. It is stated that the "Könn wu tu" administers altogether 500,000 plots of land of 100 mou each, i.e., 50 million mou which have been taken from the Mongols without the slightest recompense. - It would require considerably closer study to form an opinion of the intensity of the settlement, the numbers of Chinese that have immigrated and similar questions. A couple of Mongols from Ordos assured me that 20-30,000 Chinese had immigrated to that district alone during the last few years. It would be difficult, however, to accept this Mongolian estimate as a basis for statistics. Here in Kweihwa ting, on the other hand, I was told that the number of Chinese immigrants was comparatively small. Quite a number of settlers have, indeed, immigrated here in the course of time from Chihli,

Shantung and Shansi-Kuli, but the manipulations of the Dzian Dziun have been carried out mainly at the expense of the Mongols by selling both new land and leased land to Chinese, who were already established in these districts. A large part of this land is said not to be populated, but only to be used during the summer by labourers who are sent there and who come away again for the winter. The comparatively hard winter is supposed to have had a considerable influence on the supply of settlers.

The area on both sides of the Hwang ho is described as very fertile, being watered by irrigation canals dug from the river. Hemp, jumi and tchumiza are grown there principally. The average crop is $7-8$ tou per mou or, in other words, 10 fold. - In the N the land is said to be much worse owing to a shortage of water. Jumi, tchumiza, millet and tchaumi are grown. Average crop 5-6 tou per mou or 5-6 fold.

Obviously, all this has caused great dissatisfaction among the Mongols. Scveral, whom I met, complained with an absence of reserve that was unusual for Mongols. They volunteered the statement that it would not have taken much to provoke a rising. Now, however, that danger was past. From the concentration of troops along the frontier of Ordos (Si-an-fu 2 tchi of matui to Yulin-fu, Tai-yuan-fu 2 matui to Lanchow) it is evident that the Chinese Government apprehended this. It was on the plea of serious disturbances among the Mongols that the Dzian Dziun obtained permission last year to execute one of the officials of the Djungar wang. This request, probably in conjunction with the revelations of dissatisfied, dismissed officials, induced the Governor to send an inspector. The result of this step and a petition to the Throne drawn up by the wangs of Ordos was that two highly placed officials were instructed by the Emperor to investigate the matter more thoroughly.

At present further settlement has ceased, at all events for the time being, the Dzian Dziun has been dismissed, all his property has been confiscated and orders have been given for his trial. His immediate assistants, whom he had rewarded generously, have been sentenced to more or less heavy punishment and have been replaced by officials whom he had dismissed previously. It is said that his transactions of the last few years must have provided him with at least 2 million taels.

A mile or two NE of Kweihwa ting you reach the Manchurian fortress. It lies embedded among shady trees growing on either side of the small ditch that surrounds the fortress. The wall, about 45 feet high, encloses a square space scarcely $2 / 3$ of a mile along each side. The corners are provided with turret-like buildings with gun embrasures facing in two directions, 16 divided into two storeys on each side. Above the buttresses of the gates there are smaller ones with 12 embrasures facing outwards, also in two storeys. The other buttresses are small. At every other one there is a low clay building. The space within the wall is intersected by two broad streets kept in good condition. The buildings are small and neglected and there are a few poor shops. The inhabitants look poor. No flags waved in front of the yamen of the Dzian Dziun, situated approximately in the centre of the Manchurian town, although he was still living there. The Dzian Dziun »I» cannot be spending very enviable days in expectation of his sentence. He may, however, perhaps still have a ray of hope, and not without reason, for anyone in China, who has plenty of
money, may always hope to prove successful even in a most unjust cause. The powerful Prince Kin has already pleaded his cause before the Throne, and if this has not been crowned with success on this occasion, it is impossible to tell, what forces will be set in motion next to save this highly placed and, above all, frightfully wealthy rogue.

A Taotai and an Ehrfu, i.e. a fu of the second class, are resident in Kweihwa ting. The district of the former embraces the following 7 ting: Fu ming fu (Kweihwa ting), Feng chen, Nin yuan, Saratsi, Wu yuan (near Bautu) (Bautu itself is included in Saratsi), Yu chuan (SW of Kweihwa ting, near Tokoto tua cheng) and Chentung ting (in Chia hoti in the possessions of the Djungar wang) already referred to.

The town has the following schools:
I tsung hsio tang, 3 masters, 70 pupils - I liang teng hsiao hsio tang; i kao teng hsiao hsio tang, 2 masters, 80 pupils; i chu teng hsiao hsio tang; i ming yang hsiao hsio tang.

An attempt to confine the sale of opium to a shop run by the authorities has been abandoned and the sale of opium is now permitted as before in private shops, but the sale of accessories for smoking is forbidden. About a dozen large shops sell opium. There are no smoking dens. - The proportion of smokers is said not to exceed $20-30 \%$ There is a private home in the town for curing smokers, started by a Chinese. Proclamations have been issued that the growing of opium is to cease entirely in the course of to years (i.e., now only 7) and that the fields are to be reduced annually by $1 / 10$. This is not controlled, however. Owing to bad harvests opium growing has been voluntarily restricted here, too, to some extent. The high taxes on opium growing have, no doubt, contributed towards this to no small degree. - 1,200 cash are levied per mou with rainwater culture, 3 taels per mou with irrigation canals, payable in copper or at an exchange rate fixed more or less arbitrarily by the mandarin.

There does not seem to be much faith here in the construction of a railway to Sinkiang in consequence of the great distance and the lack of funds. On the other hand there is talk of prolonging the Pu chow-Tatung fu line to Kweihwa ting and possibly further to Ning-sia-fu. It is said that in any case the line will be built from Tatung to Kalgan. However, no more than ro,ooo taels are said to have been subscribed here for accomplishing the scheme, whereas at Taiku a single merchant sacrificed ioo,ooo. It is quite right to use the word "sacrificed", for there is so much distrust of the officials that the inhabitants scarcely believe that the railway will ever be built and therefore regard a subscription for railway shares not merely as money paid, but as money lost.

With regard to means of communication in general, they are numerous and embrace in a wide semicircle practically all places in Northern China and Mongolia from Uliassutai in the N to Lanchow in the SW. The greater part of these routes cross desert areas, where they are sometimes deprived of water for 1 or 2 days and generally have only a limited supply of coarse grass. They can therefore only be traversed by camel caravans. I have not yet been able to study the resources of the different roads in detail. Judging by the quantity of large arbahs, covered with felt, which stand outside my window and go backwards and forwards from here to various places, especially Kucheng, many of them are apparently level and suitable for wheeled traffic. An arbah to Kucheng with two camels costs 70-100 taels.


- Tientsin I arbah ( $\mathrm{I}, 000 \mathrm{djin}$ ) 70-80 taels

Kweihwa ting possesses many Mongolian (Buddhist) temples which are supposed to have been built in the time of the Emperor Han or T'ang. There must be about a dozen of them. I visited five. With the exception of a couple, all are built in Chinese style and might easily be mistaken for Chinese miao groups of buildings. The wood carving on the front of the buildings is different, however, from what you usually see and bears a strong resemblance to the metchets of the Dungans built in Chinese style. The entrance door is also in the shape of a semicircle in some of the temples. Their religion is occasionally revealed, however, by a suburgan tower in the vicinity. Inside, however, they possess a type of their own, possibly something between Yutai Shan and Tibetan temples that I have seen. - You enter the temple through a large hall of columns with the tall armchair of the foy or senior lama at the back and parallel rows of pew-like benches or small carpets for sitting on. The outer hall, which is set aside for teaching and reading in unison, has no decoration but Buddhist images on the walls and gilded carving on two rows of columns. You enter the next hall, the actual temple, by three large carved and pierced doors similar to the entrance doors, if the temple is not in a separate building placed close up against the first. In either case it is much darker in the temple-hall than in the first, which is itself rather dark. A faint light penetrates by the open door. and a row of small windows above the doors lets in a little more light. The temple-hall is deep, considerably deeper than at Yutai Shan, though this may be an optical illusion, due to the fact that the main idols are placed against the back wall, as in Tibetan temples, and not in the middle of the room as at Yutai Shan and in Chinese temples. - Three, or often five seated gilt idols, I $1 / 2$ or twice as large as life, are enthroned on a high platform placed against the back wall. I think those I saw were made of clay. Each one has a background, carved and gilded, in a semicircle widening slightly at the top. In front of them there is often a row of idols, either standing or seated, but of smaller size - slightly less than lifesize. In front of these there is a row of triangular, coloured, thin screens pointed at the top and decorated with flowers and all kinds of ornaments. They are typical of the local temples and are placed between two or four red wooden columns, considerably lower than the Buddha images, up which carved coloured dragons twine themselves. In front of them there are one or two rows of red wooden cupboards with carvings of dragons, 3 in a row. On these, two or four rows of urns for incense are placed in the shape of vases or animals, fans, cups of water and other ornaments. In front of them, again, opposite the entrance door there are another one or two such solid cupboards with smaller idols, metal mirrors, bronze animals etc. Still further off there is an incense dish with a small lamp in the middle. - Along the side walls, on two platforms, are two rows of standing idols, facing each
other, $11 / 2$ times larger than lifesize. As a rule there are 7 of them on either side, the end nearest the entrance wall being occupied by Ma and Niu wang (the protectors of horses and cattle), two terrifying idols with wild gestures and looks, the one red and the other black. A garland of small human heads hangs from their shoulders to below their stomachs. Rows of long, heavy, coloured bands, faded with age, are suspended from the high ceiling almost to the floor in the shape of cylinders, so that they form, as it were, more large pillars. The walls are decorated with Buddhist banners and more enormous banners hang between the pillars. Naturally, this scheme of decoration is simplified sometimes for lack of space or means. It was very similar, however, in the temples that I visited. The description will give an idea of the overcrowding in the temple and the want of space in the dark hall.

I visited "Ning Chi sui», an old little neglected temple which is distinguished by two suburgan towers standing behind it. The back wall in the temple-hall is occupied by three seated idols of "Kufo».
"Tsung fu sui" seemed to resemble a mosque built in Chinese style. The front is decorated with partly crumbled wooden carving, on which a board with Chinese characters has been nailed. The outer courtyard is decorated with two tall memorial stones. The place of honour along the back wall is occupied by "Chouking keke», surrounded by four other gilt Buddha statues of the same size.

In "Ta Chow" the figure of "Shagditu" is seated in the middle of the back wall between two images of "Tibunkar", beyond which two specimens of "Tsunkaba» are placed. In front of "Shagditu" there are two smaller "Lamdalei» on a separate platform between two standing "Lamtseihö», beyond which there are two seated specimens of "Chaktu».
"Singchow" possesses, among its old temple buildings with rounded entrance doors and a couple of small suburgan towers, rather an unusual temple, the five closely placed low towers of which attract the traveller's notice. Its outer walls consist of brownish-yellow glazed tiles with small images in bas relief. This temple building is not of ancient date, but belongs to the time of the Emperor Kienlung. Inside there is only one small idol. I was unable to see the older temple building.
"Shöli tu chow" is the most magnificent temple group in the town with gilding, lightblue and yellow glazed roof-tiles that sparkle across a great distance and a beautiful, marble-white, tall suburgan tower embedded among shady trees, its old gilt bronzes being most effective. The main building, just behind the outer courtyard, is in pure Tibetan style with two gilt animals facing each other and other bronze decorations on the flat roof. "Burhun bakshe" is enthroned in the middle of the back wall with "Tusum Sandsie" on either side and two specimens of "Otatsche» further off. - At first I was not received very well in this temple, but later I had the good fortune to meet lamas, my friend Fusi and another, who had the intention of visiting Russia. The statement of the Chinese police soldier that I was a Russian acted as a magic wand. Not only were all the doors of the temple thrown open, but there seemed to be no end to invitations to tea and dinner, presents, "hataks", visits and return visits. - I gained the impression not only at Ili, but also Yutai Shan, on the journey from it to this place, at Kweihwa ting and even at inhospitable Labrang, in fact, wherever I met Mongols, that Russia undoubtedly enjoys
a good deal of favour among them. It seems to me that the presence of Buddhists, Buriats and Torgut-Kalmuks within the frontiers of Russia contributes towards this in a considerable degree, perhaps too a secret dissatisfaction with Chinese suzerainty, however lightly this may appear to press upon the liberty-loving Mongols as a whole. It need scarcely be added that the settlement policy introduced here is not likely to act in the opposite direction.

The land, on which Kweihwa ting stands, is looked upon by the Thumitha Mongols as their own. They consider their frontiers to extend in the E to Chahar, the land of the Mongols in the W to Ordos, in the S to Shahuko and the Great W all and in the N to the Chalcha Mongols. They maintain that they are as ancient as the Ordos Mongolians. The Chalcha and Chahar tribes came much later, during the present reigning Tsin dynasty, the former from the W, the latter from Sjehor, not far from Shanghai Kuan. Thumitha is supposed to be the real name of the district. Their former prince (princes?) before the days of Chinese rule were called „Kegeni alteng». Tumytgun, which is marked on the Russian 40 verst map, is the residence of a petty prince. They have about 20-30 lamase-ies. Among these they mentioned: Pu hoi sy 150 li N of Kweihwa ting ( 60 li from Kökölilikung); Yungan sui 30 li N; Kuang shu sui 30 li NNW; and Yenching sui 30 li NE, all reckoned from Kweihwa ting. These lamaseries are all subordinated to the foy in the Shöli (Sire) tu chow monastery at Kweihwa ting that I have described. During my visit there the foy happened to be away at one of the other monasteries. The Thumitha tribe is divided into 60 summuns of $20-100$ yurts, altogether about 2,000 tja. Now they are subordinated directly to the Dzian Dziun at Kweihwa ting.

This potentate's sphere of action extends in addition to the following 13 Mongolian tribes: Ordos 7 princes; Durbut wang of the Chalcha tribe in the N about 28 summuns with a population of $1-2,000$ tja; Peiling wang with about $\mathrm{I}, 000$ yurts $S W$ of the latter and also SW of Tumytgun, mentioned above; Mominga wang with about roo yurts still further to the SW close to the Hwang ho; to the west of these three tribes there is a long and narrow area (about 1 ,ooo li in length), running NE-SW called Sankung, as it belongs to three „kungs» (counts), Tung kung on a level with Peiling wang, Tsung kung further SW and Hsi kung still further in the same direction. They are said to be at the head of a populous Mongol tribe of about $30-40,000 \mathrm{tja}$. Their district reaches as far as Alisia wang (obviously Ala shan) which is subordinated to the Dzian Dziun of Ning sia-fu. The residence of the latter lies about 200 li W of Shytsuiza on the Hwang ho. This numerous tribe is considered to be as old as the Ordos tribes and their wang is said to be the highest in rank among the Mongolian princes. - Of the Ordos princes only the Djungar wang and Hangin wang are privileged to visit the Imperial palace at Peiping on horseback.

The Chahar tribe is subordinated to the Tutung at Kalgan and is said to be obliged to render military service for special pay, whereas the tribes subordinated to Kweihwa ting are said to have no responsibilities in this respect. This does not accord with the actual facts, however, and is probably based on the fact that no drill is done. Ordos Mongols told me that in case of war every tja was liable to provide one soldier. He has to provide his own arms, which affords an idea of the equipment the troops they constitute are likely

to possess. The Wangs alone have some modern rifles occasionally. There is no drill. In case of war one horse is requisitioned without payment from those who have less than 30 ; if they own more, two or more may be taken. Those who only own one or two horses are apparently exempt. - In Ordos they are said to pay their Wang a tax of i tael per horse and 0.6 taels per head of cattle. - The whole of Ordos is said to pay the Bogdykhan 40,000 taels annually.

The Dungans are a true blessing to whatever place they inhabit, for it is only thanks to them that you can buy a little milk. Here there are many Dungans, consequently plenty of milk at a cheap price and not yet mixed with water. The number of Dungans is estimated at about 3,000 tia. They, too, state that they immigrated in the time of the Emperor 'T'ang from Turkey under the leadership of the Wang Gaz, a Turk, and a Chinese, Aster. Only men had come here and had married Chinese women, who had gone over to the Mohammedan faith, not only themselves but with their parents and brothers and sisters. Documents relating to their previous history are said to be in existence in the town of Kwantung in the S, where the Wang Gaz died. Marriages with Chinese women still occur, but the Dungans do not give their daughters in marriage to Chinese. Occasionally Chinese go over to the Mohammedan faith, though no propaganda is carried on. At an old mullah's I saw two visiting cards sent from Peiping by two ambassadors" from Turkey. Habzu Hassan and Ale Rizuan were reported to have been sent by the Sultan to establish schools among the Dungans. They were said to be at Kai-feng-fu at the moment, but were expected here shortly.

There is a Swedish mission station in the town from the Helgelse association. A very pleasant elderly and modest missionary, Mr En , and his wife are at its head. I believe Mr and Mrs En are the only, or at any rate among the few, former Swedish missionaries, who survived the Boxer rising. They were on leave at the time. - There is also a Roman

Catholic mission here, but it is only visited from time to time by Belgian and Dutch padres of the surrounding district. None of them visited the town during my stay, a circumstance that deprived me of the opportunity of making the acquaintance of another of the ever kindly padres of Scheut.

July roth. My departure, which had been fixed for yesterday morning, had to be put off until Kulishang to-day, as my drivers failed to turn up. I only succeeded in finding them with the help village. of men sent out by the mandarin.

At first the road runs in a NE direction slightly $S$ of the Manchurian town. Here we passed a village, Wa-iao, with 30 houses. Further west, closer to the mountains, there is a green and shady populated stretch. On the right, too, many villages were visible. The weather was splendid and sunny, though the heat did not worry us. Here and there a poppy field shone in bright colours. The fine chain of mountains on the left looked tempting in the morning light. In the distance the plain was bounded in the E and SE by the chain, or rather, chains of mountains we crossed on our way here. A grey mist scemed to rest on them, through which their outlines could only be distinguished faintly.

We soon left the Manchurian fortress behind us with its enormous corner towers, the dark gun embrasures of which dozed deceptively in long rows behind the thick verdure. After io li we passed a small village. The plain was now less cultivated and populated. Scattered villages could be seen a good way from the road close to the mountains on the left. On the right they were more numerous and nearer. We could see long stretches of low grass. Trees only in the villages.

Our course changed gradually to ENE and we drew away from the chain of mountains on the left. After 35 li Lantai with 50 houses, after 40 li Tachangfankuluen with 100 , after 42 li Langpan-tzu with 20 . Five li beyond we had a big old tower of 7 storeys on the right. After 50 li we reached Peithö'z with 30 houses, a small, old Mongolian temple with a couple of small suburgan towers falling to pieces and some blocks of stone lying in front of the stairs, apparently the remains of some kind of columns with Buddhist symbols and Tibetan or Mongolian words carved on them. From this place the road took a NE direction and led us in a wide curve to the village of Meit Ehr, 70 li distant. The village consists of 80 houses. Gaolyan, tchumiza, peas, wheat, tchaumi and potatoes are grown there. Average crop 5-6 fold. Here we made our midday halt. I was approached by an uncommonly outspoken old woman, who invited me to come and see a beautiful young woman of 20 , so she said, a great rarity. - I find the women here much less ugly than in other provinces I have visited; they are tall, with a good carriage, straight noses, oval faces and beautiful eyes.

The ground in the plain was sandy, slightly stony in places and generally firm. Occasionally we came to lower places, but even to-day after several days of heavy rain the mules only sank in slightly. The plain was intersected by many roads leading from one village to another - all suitable for arbahs. We were now close to the westernmost spurs of the mountains in the E , long grassy ridges in a NE-SW direction. 6 li from the last village we reached the first hill on the left. On the right a dry river-bed went eastward.

The direction of the road was now mainly $E$ with slight deviations to the $\mathbf{N}$ or $\mathbf{S}$. On the other side of the first mountain ridge a cultivated valley with a few villages opened up on the left, surrounded by mountains. A small river, which we crossed, flowed through it from NE to SW .

After 80 li Ehr-shih-cha-tzu with 6o-7o houses and at 88 li the village of Koukuza with so houses in a valley between low, grassy hills in the N and S . The valley was about 2 1/2 miles wide and intersected by a tributary of the Ta ho, 20-30 feet wide. After 90 li Shyrynvan with 20 houses. Here the mountains withdrew from each other. A slightly ascending and rather stony sunken road led us up to a plain with fairly large mountains in a N -S and $\mathrm{E}-\mathrm{W}$ direction about 20-30 li in the E . In the N and S it was bounded by hill-like long, low ridges. After 100 li the village of Huchia youtzu. From this place the road dipped slightly, occasionally along a sunken road towards the mountains in the $\mathbf{E}$. After in o li the village of Kulishang with 100 houses, partly consisting of caves in the side of a ridge on the left. Gaolyan, millet, tchumiza, jumi, shuza, wheat, tchaumi and potatoes are grown. Average crop 6 fold. The fields are worked with rainwater. - 40 oxen, 60 horses and 20 donkeys. - Snow from the 9 th to the 3 rd month, almost 5 inches in depth. Frequent W buran in spring. Rain from the 4 th to the 8 th month. A wheel-track leads from here to Sing yuan ting.

The ground during the in o li of today's journey was very much like that we covered during the latter half of yesterday. No more high mountains, all the time we were surrounded by low mountains or hills like mounds or ridges. The road either traversed a long and narrow valley or it crossed another, but more in the nature of a plain, all, however, enclosed by low grassy hills.

At first the course of the road was E towards a valley, about $\mathrm{I} / 2 \mathrm{mile}$ in width, at the bottom of which a dry river bed wound. Low, grassy hills extended on both sides with gentle slopes, the lower parts of which, as well as the bottom of the valley, were cultivated. Several side-gorges opened up in the northern mountains, each one contributing a dry river bed from the N or NNE. After io li Latiouza with io houses. The valley had grown narrower and was not more than about 600 yards wide. The crop in the fields was meagre. The soil was very sandy and stony. After in li Mao dou mong with 15 houses, after 17 li Teitjajouza with $50-60$. The ground grew stonier and stones of large size began to occur at intervals. After 19 and 22 li the village of Shuimo with 15 houses in two small groups, 25 li He with $5-6$ houses. Our course was now ESE. On the left we caught sight of small groups of villages at the mouths of gorges some distance from the road. Higher up the slope, on the right, a small clump of low trees here and there. An occasional group of cattle or small flock of sheep was visible on the heights.

After 40 li we reached Taushu with 40 houses. Just beyond it we encountered a fairly large grassy ridge going in a $N$-S direction that seemed to cut off the valley. A dry river bed came out of a wide gorge in the $S$, another rather larger one from the NE. The road led up towards the latter and we were soon in a valley, about 230 yards wide, between similar grassy chains of hills. After 50 li Hungsapa with 30 houses. We now noticed a slight, but
perceptible rise in the ground. Our course again turned SSE for a time, but soon turned SE. After 57 li Hsiao with 60 houses and after 60 li Ta-tsahanpula with roo. Here jumi, tchaumi, peas, beans, tchumiza, shuza and millet are grown. Average crop 5-6 fold. The road turned E and the ascent became slightly more perceptible. After 65 li Yulipa with 6-7 houses (barometer No. 1 616, No. 2 583). The road now led us with a slight descent into a fairly large valley, surrounded on all sides by the same kind of mountains. Its greatest extent is E-W. A great many small villages were scattered round the plain that was cultivated everywhere. In it we passed the villages of Hou tien with 9 houses, Tunghou tien with $30-40$ and Ninchiachuen with 10 after 72,74 and 80 li. On the right, close to the road, there was now a gentle slope. We turned SE at about 82 li and passed some small mound-like hills. These led us up to a small saddle-shaped pass between two slight hills. We reached this at about $88-89$ li after a perceptible rise in the ground for I li; the road was good and not steep (barometer No. 1 612.2, No.2 579). In the distance in the E a slightly higher ridge was visible running approximately $\mathrm{N}-\mathrm{S}$.

The descent was slightly stecper and rocky in parts, but shorter than the way up. Both in ascending and descending there were sunken roads, though of no great depth in some places. After 90 li Hsiao paza with 10 houses in a valley that took us down from the pass. This soon debouched into another wide valley, the main direction of which was NNE-SSW. The road turned at the foot of the mountains on the right in almost a $S$ direction. After 1 io li Suchi with 20 houses. The same plants are grown as above, also potatoes and hemp. Average crop 4 fold. - Snow from the 9 th or 1 oth to the 3 rd month, 9 inches deep. Rain irregular from the $4^{\text {th }}$ to the 8 th month. NW burans in spring. 20 head of cattle, 20 horses, 7-8 donkeys and 200 sheep.

July 12 th. Fengchen ting. cultivated ground with a slight fall between low, long, grassy hills. On the right they were really nothing but slight slopes, on the left rocky in places and more in the nature of mountains. Between them, a good way in front of us, the blue surface of Taiha Nor could be seen against the dark background of the mountains. There were a few scattered houses on the right of the road. We crossed a dry river bed several times. After 8 li the mountains retreated and we entered a cauldron-shaped valley that dipped towards Taiha Nor in the SW. It was surrounded on all sides by mountains, of which those rather further to the W appeared to be the largest. A gap was noticeable between them and the mountains that came towards them from the other side of a lake. A road was said to lead westward there. The lake extended far to the WSW, where it disappeared among the mountains.

After io li the village of Sataiku with ioo houses, some rather scattered. Our course was now SSW across the grassy and only slightly tilled plain. After ${ }_{15}$ li Kusan with 15 houses, and at 25 li Mjehothu with roo. In the W , close to the shore of the lake, a village was visible with a Mongolian temple, the white suburgan tower of which could be seen at a great distance. The Chinese call it Hala Chow, which should probably be Hara Chow. Small villages were scattered about the valley and herds were grazing round the lake. After 32 li we crossed a river bed, about 25 yards wide, with only a little water, flowing
from the E. Course SSE. After 35 li Muhwa with 50 houses $S$ of a small river bed coming from the E. Course SSW. After 45 li Pati hsia, a small village. Course SSE. After $47-48$ li we entered a sunken road of a slight depth that led us, ascending slightly in an ESE direction. up to a pass. This we reached in about half a li (barometer No. I 64i.1). Small hills appeared on the right and left, i.e., in the $E$ or ENE and in the W. For 2 or 3 li we kept at almost the same height, setting a SE course. In the E and SSE we noticed a long and slight dip in the ground. On the other side of this rather lower plain, the ground rises again and changes gradually to two mountain ridges, running approximately NNESSW and ESE-WNW and seeming to meet in the SE. Scattered villages and small herds were visible in the plain. - We stopped for our midday halt in the village of Tien chung tsun with 300 houses on a dry river bed, after covering 70 li. Here the same plants are grown as at Suchi. Average crop 9 fold. The sarais along these roads in Northern Shansi have a special local arrangement and stamp that does not occur on other roads that I have travelled. The yards and stables are very roomy, almost all the space that is usually used for living quarters being sacrificed to them, the dwelling space being reduced to a minimum. As already mentioned, they are usually arranged in the form of two large, bar-rack-like halls with common kangs along the side walls.

For a short time we went on in a SE direction. After 74 li Chinglung tsuo with 20-30 houses. Beyond it the road ran in an ESE direction, almost due E, towards a valley at the place, where the mountains I have mentioned seemed to form an angle. On the right the ground was slightly lower and some small villages were visible. After 89 li we crossed a river bed, about 50 yards wide, going off to the right, practically without water. The ground, which had risen a little, now fell just as slightly. After go li Ma wang miao with 13 houses. On the left a long, level valley with a couple of small clumps of trees and some small villages. Behind it a mountain went parallel to the road. On the right the ground rose in a gentle, but long slope. In front of us the ground changed to a row of hills, behind which there were one or more chains of mountains running in a direction exactly opposed to our road. After 100 li Machangliang with $40-50$ houses. The road led in a slight ascent up to the chain of hills. We reached the crest after about 104 - 105 li (barometer No. i 649). A large valley, in a SE direction, was spread out before us. We could see many villages in it with shady trees. They were the only thing visible, for the landscape was bare as far it was possible to see. The mountain that ran parallel to the road at a distance, intersected the valley in a slanting direction. On the right another ridge with gentle slopes approximately in a NE-SW direction. Behind this a solitary mountain rose at some distance from the row of hills on which we were. It was only in front of us on the other side of the valley that the mountains appeared to be slightly higher. There was a fairly large collection of houses at their foot - the town of Fengchen ting, our goal for the day.

The town, which is of a considerable size, is said to have a population of about $3,500 \mathrm{tja}$ and is not surrounded by a wall. You find yourself in its centre quite suddenly. A traveller coming from the east, from China's more beautiful towns, might, perhaps, be struck by the stench and filth of the streets, which are often low-lying, but a nose such as mine, hardened in Central and Western China, is not worried by such a bagatelle. A beautiful
group of temple buildings with 8 tall poles of cast-iron and wood in front of its entrance attracts the attention. In the cool evening the doors of the houses were packed with women sitting and gossiping, both old and young. Many had a refined look, but on the whole they looked less attractive than the women I saw on the way here. - The town extends mainly from NE to SW along the foot of a hill coming from the N. The E part has spread out a little along the bank of a fairly broad river bed. In the $S$ and $W$ the town is surrounded by a marshy meadow.

The principal importance of the place is founded on traffic with Mongolia, to which good roads are said to lead over Lungsheng in the N , a place with a population of over r,000 tja, mostly Mohammedans. Large herds of cattle are driven to the town from Mongolia to be sold. Many roofs are covered with rows of hides spread out to dry. Trade in grain is also said to be considerable. The surplus grain crop is sold to the south. There are not more than 200 shops, but as many as 7 very large sarais intended exclusively for trade in grain. Others attend to trade in cattle. - The town is the residence of a Fu, a socalled Ehrfu. The garrison consists of one tchi of putui of the Kweihwa ting detachment. It is mostly scattered at various posts. - The town is connected via Lungsheng Chuang with Mongolia and Kalgan (5 days, good road) and by arbah roads with Tatung fu and Kweihwa ting.

The following schools have been opened: Chutung hsio tang - Kao teng hsiao hsio tang - Liang teng hsiao hsio tang. The new police force consists of 30 men of the matui and 30 men of the putui.

There was said to have been an old mandarin in the town last year, who was keen on reforms and spoke personally to the people in the market place, trying to convince them of the necessity of giving up opium smoking and binding their fect. He was dismissed and was succeeded by a man who displayed complete indifference to the opium question and to reforms in general. The result is apparent. The opium asylum at the Swedish mission, which was always full of people last year, is now empty. More opium is grown this year than before despite edicts and proclamations. Last year some people had been scared and gave up growing poppies, but the braver spirits were rewarded by a very good year and as a result, of course, nothing could stop others from following their example. The sowings are said to be larger now than for some years past. A tax is paid on land of the ist class of 2.4 taels per mou, of the 2 nd class of 1.6 taels and of the 3rd class 1.4 taels.

The climate is very pleasant. In the summer the temperature does not rise above $+30-32^{\circ} \mathrm{C}$. , in winter the cold does not exceed $-25^{\circ}$. There are heavy storms in the spring, mostly from the W and NW, but at times, too, from the E. There is a good deal of similarity in climate with Kweihwa ting. The town has a Swedish missionary station under the management of Mr and Mrs Hill. The district consists of:

|  | tja | annual crop | oxen | horses | nke | sheep | per mou |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| E (abt. 120 li ) | 3,420 | 200,000 tan | 2,000 | 3,000 | $35^{\circ}$ | 30,000 | 7 tou |
| W | 1,135 | 50,000 | 2,000 | 1,750 | 200 | 10,000 | 5 |


|  |  | tja | annual crop | oxen | horses donkeys | sheep | per mou |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\mathrm{N} \ldots \ldots \ldots \ldots \ldots$ | 4,500 | 250,000 tan | 3,000 | 2,000 | 650 | 20,000 | $7-8$ tou |
| $\mathrm{S} \quad \ldots \ldots \ldots \ldots$. | 2,400 | 50,000 | 3,000 | 2,000 | 650 | 10,000 | 6 |

44,055 tan are levied annually in laxes. In seed per mou 3-4 shyn.
The road to Tatung fu is in a SSE direction at first along the river bed that is about 160 yards wide and is a tributary of the Sangkan ho. The actual water-channel is not more than 20-30 feet wide and of slight depth. On the other side of the river the ground forms a chain of mound-like mountains. After 1 i/2 li we turned ESE. About 3 li later the road led up to the ridge that intersected the valley from NE to SW. The road was sandy and deep. After 7 li we passed the village of Santaito with 100 houses, mostly scattered. We reached the crest of the ridge after io li. It was stony and in many places the rock forces its way through the layer of earth, sand or löss. We now cotninued in a SSE direction. Further $S$ another ridge was visible intersected by clefts, on the other side of a partly cultivated depression in the ground of slight depth. After 16 li we came, after crossing a cleft almost without water, to a small village. The road took us down the ridge, at the foot of which stood a small fortress going to ruin, quite close to the Great Wall that was in a state of great decay here.

At 20 li we reached Tyshynkou, the gate in the Great Wall, after making a considerable détour to the E. The houses along the streets, especially a couple of yamens, had the venerable appearance that only the passage of centuries can bestow. Two narrow poles, several yards in height, and very artistically cut with stone lattice work, stood in front of the entrance to a temple. A bent tree, several centuries old, in the open space in front of a yamen helps to give the place an old-world appearance. On the other side of the river, the Great Wall continues southward along the foot of the ridge that could be seen clearly from the top of the one we had crossed last. This, too, was in a NE-SW direc ion. The way up was sandy and the crest stony and rocky. Afler 35 li Laonyuphotihsia with a sarai in a short valley, shut in on the W by the same hill that we had recently crossed. A little further on, we could see it again approaching the river bed. The mountains on the opposite bank had gradually increased in height. At the spot where the ridge again reached the river bed, lay Hungsyr (roo houses) at a distance of 40 li , wi h the ruins of a wall. Here the Great Wall turns in an easterly direction, goes up the slope of the mountain and disappears on the other side. Our bank lay at a good height. The land was untilled as far as we could see and the grass was poor. At 45 li we crossed a cleft with a little water. - The road led up the ridge. On the crest ( 50 li ) we reached the village of Tingkö da liang wi h 30 houses, where, owing to our having started late this morning, darkness overtook us and we stopped for the night. - Millet, tchumiza, jumi, shuza, peas, gaolyan, mustard and red kunsjut are grown here. Average crop 6 fold. Snow from the 1 oth to the 3 rd month, 5 inches in depth. Rain in the 5 th- 6 th month, but irregular. Southern storms in winter and spring. When we reached the little village yesterday, it was raining as though the floodgates of heaven had opened. We were glad to
find shelter in a large sarai with a room big enough for at least 50 people. Here in Shansi they are undoubtedly much cleaner than in the other northern provinces.

We started to the SW from our night quarters for about a l , whereupon we made a curve to the N and NW until we had rounded a cleft and then turned for a time in a SSW direction. After 5 li Inzakou with 50 houses. Our course was now definitely SSE. After ro li Utietsung with 100 houses, at 20 li Santihsia with 40 . The plateau of löss on which we had travelled for the last 30 li and which is connected in reality with the two ridges of yesterday, was now crossed. On that part of it which we had crossed latterly, too, there were large stones and small spurs of rock at the top, while the slopes consist mostly of löss, often mixed with sand and pebbles. The mountains now retreated slightly to the W and continued in a SW direction. The folds in the ground became deeper and the outlines of the mountains, though still small, grew more rugged. The river valley widened very considerably in front of us and attained a width of several miles with a slight dip from the W and E towards the river. The mountains on its other side had given way to mound-like hills with very gentle slopes. Far to the SSE the dim outlines of a larger mass of mountains was visible, evidently the one that formed a wedge between the Sangkan ho and the Hun ho, its tributary from the NE. The river flowed SSW, almost $S$, in two arms, its bed about $1 / 2$ mile wide. In the SSW we could see the town wall of Tatung fu on the horizon. - Just beyond the village the road crossed a river coming from the NW, 40 feet wide, at 30 li Kutier tsung with 150 houses. We followed the right river bank, which rose at times in the form of a ledge of löss mixed with sand and stone, gradually ascending towards the mountains.

After $4^{2}$ li Pei macheng with 60 houses. Here I made vain efforts to photograph one of the women in their very striking dress - a pair of baggy trousers and a kind of waistcoat buttoned in front like a pair of broad braces between the breasts, leaving the latter free. Not even money was of any avail. As long as we were negotiating, all was well, but as soon as I produced my camera, they rushed wildly away and bolted their doors.

After 50 li Tatung fu. $N$ of the town there is a large empty space surrounded by a fortress wall that is falling to pieces. A small impanj, occupied by i tchi of putui, stands in its NW corner. The N gate of the fortress wall of Tatung fu faces the S gate of this space. The former is provided with a double protective buttress, though the outer one is quite low, making the number of gates 3. They are placed as at Kanchow and partly very dilapidated. The wall is over 50 feet high and also going to ruin. The buttresses are few, 6 between the gates and the corner buttresses. A tower of the same height and size stands by itself in front of these. A small ditch runs round the town wall. There used to be towers with gun embrasures above the gates, but they have fallen to pieces completely. Two wide streets connect the 4 gates, 2 by 2. Only those parts that are close to the centre are slighty better built and cleaner with a kind of broad pavement. Some wooden gates and a couple of old towers enliven the monotonous streets to a small extent, but they are very uninviting, at any rate on a rainy day. The arbahs rattle over the stones scattered plentifully here and there, and the rain forms little rivers, that pour down the lowlying streets. A slightly open space is transformed into a lake, through which the horses
wade knee-deep. The houses are mostly dilapidated. The stench from the sweepings and other offal thrown into the street is often overpowering. - The town is celebrated for the beauty of its women, especially for their small feet, but on a day like this they were not to be seen.

At the invitation of Mr Edv. Larsson, a missionary from Sweden, I was put up in an excellent room in the Swedish mission house. The pouring rain forced me to wait a day, for no arbah driver would undertake to cross the river swollen as it was with rain. In fact, there was nothing for it but to be patient.

In the afternoon Larsson and I called on the local Fu, a pleasant Chinese from Kiangsu, and on Wang Djentai, a lively old fellow of 61, who had studied in Berlin and elsewhere in Germany in the marines, naval gunners and the staff college. He had been employed a good deal by Li Hun Chang, but after the death of the latter had fallen into disgrace with the powerful Yuan Shih-k'ai, been dismissed and only recently been appointed as Djentai of a detachment of 8 tchi, altogether a little over 1,000 men intended for fighting revolutionaries. He was so kind as to allow me to watch some exercises with 2 guns by a ying of artillery that was being formed of men recruited three months ago and later of an infantry company, altogether 60 men divided into 3 platoons. The gunners were smart, but the evolutions of the infantry left a good deal to be desired and the men looked weak and badly developed. There is said to be i instructor from the Pei yang army attached to each ying. - The old man criticised the military reforms in China severely. There were practically no officers with real military training, he said, and it would not be possible to secure them in less than ten years, and even then only if the present half-measures were abandoned and the matter taken seriously. - Men would be transferred from the active troops to the reserve for the first time after three years. He seemed to think that the Japanese would play an important part in reorganising the army, greatly to the detriment of the cause, for he considered the Germans incomparably better suited and further advanced. He admired the Japanese for their courage that bordered on the incredible, but had no high opinion of their officers, especially since the war, in which a large percentage of the best ones had been lost. He had attended large manoeuvres in Japan and said that he knew their army well.

I was informed that the population of Tatung fu amounted to $20-30,000 \mathrm{tja}$. The mandarin estimated it at 167,000 men and women (this figure is obtained according to the Chinese custom of multiplying the number of tja by 5). There are supposed to be 120 tja (according to the Dungan mullah at Kweihwa ting $300 \mathrm{t} j \mathrm{a}$ ) of Dungans. The greater part of the town is densely populated. - Trade is small, imports consisting chiefly of so-called Peiping goods from the east and flocks of sheep from, or rather, over Kweihwa ting. The latter are slaughtered and the skins made of their hides are exported to the east. The women, who are famed for their beauty, form an important and valuable article of export. Many mandarins and wealthy Chinese come to Tatung fu merely for the purpose of buying a wife. The local women are very conscious of their beauty and love more than usual to accentuate their charms by means of paint, gaudy dress and ornaments, such as
ear-rings, bracelets, finger-cases etc. of silver or, in the case of poorer women, of copper. - It cleared up in the afternoon and I saw a number of small women, elegant and pretty according to Chinese ideas, in the streets, strutting about round the pools of water, proud of their tiny feet, the showy colours of their dresses and their elaborate coiffures.

The following schools have been opened in the town: i si fan hsio tang with ifo pupils and 3 masters, I tsung hsio tang, i kao teng hsiao hsio tang, 4 ming yang hsio tang and a police school.

The opium reform has not advanced beyond its starting point. Both opium and accessories for smoking are sold openly in the streets. There are smoking dens, too. Last year it was announced by proclamation that opium growing was to be restricted from year to year, but six or seven months later these restrictions were annulled by fresh proclamations. It is now stated, it is true, that all growing of poppies is to cease within a year, but this has not been made known officially. As a result, growing goes on quite calmly, though the taxes have been raised here to 2.4 taels per mou. The number of smokers is said not to be large in the town, approximately $10-15 \%$. In other places, as e.g. Huan Sien, they are estimated to be about $30 \%$.

The hsien district is divided into 353 Shang-ja areas of $100-150$ tja each. According to the information supplied by the Fu , the population may be calculated as follows:

| Tatung | 496,550 | Yangkao | 69,090 |
| :---: | :---: | :---: | :---: |
| Hwaian | 41,630 | T'ien chen | r03,8ı0 |
| Shan ing | 42,100 | Hung-yuan | 5-600,000 |

The district grows millet, shuza, gaolyan, various kinds of peas, hemp, wheat, mustard, red kunsjut and opium. Average crop 1 i fold. - 40 head of cattle, 50 horses, 70 donkeys and 300 sheep may be calculated per 100 tja.

The heavy rain prevented me from visiting whatever sights there may have been in the town. The only thing I saw was an old Buddhist temple, built on a terraced hill, large and beautiful with simple and dignified lines. It is particularly beautiful inside, having a large number of images of Buddha of various sizes and kinds along the walls and on big tables in the middle of the enormous room, stone urns and many other objects. There was something special about the spacious interior - something unlike other Buddhist temples that I had visited. The Chinese call it Shangfu sui and consider that it was built during the T'ang dynasty. - Another temple slightly similar in architecture stands outside the $E$ gate on the other side of the river.

July I6th. This morning after innumerable difficulties and caprices on the part of the old Chinese, Wanguar chung whom the missionaries had been so kind as to engage for me as a driver, we started at last village. in glorious sunshine. I was delighted to find that the old fussbox with his squeaky voice had carefully stayed at home and sent a willing and bright young fellow to take his place.

The road leads through the E suburb down to the river. The gate is very dilapidated and the tower above it has fallen to pieces completely, like the wall round the small suburb.

The river flows in 4 arms, from 40 to 70 feet wide, in a considerably wider bed. In spite of yesterday's rain, the water did not come above the axles of the wheels. The $\mathbf{E}$ (right) bank was high. Chenghwa miao, a temple similar to Shangfu sui in the town, stood picturesquely on the bank. A wheel track led past it to Uchow. - The road ascended in a NE direction up the high, ridge-like slope quite close to the bank. The sandy ground, mixed with small stones, was heavy for the arbah. On the left we saw a line of hills running in a NNE direction towards a fairly large range of mountains that was visible in the NE and disappeared on the horizon. High, dark mountains appeared in the distance to the SSE and SE. After 8 li Lao fu feng with 15 houses. The ground was still sandy with some stones, the course almost E. After 20 li Ehr-shih-li-pu with 50 houses. A couple of narrow belts of trees came up to the right of the road and there were others further off. We crossed a dry river bed. At 30 li San-shih-li-pu with 50 houses. Course NE following a slightly stony sunken road. After 40 li Sui-shih-li-pu with 40 houses. The ground rose slightly, and the road very soon took us down into a fairly large dry river bed between high, slightly hilly banks. Its direction was NNW-SSE. We followed it for a short time and then the road led between steep ledges up to the hills on the $\mathbf{W}$ bank. From their crest, reached in a few li, the ground fell slowly towards a large valley, going in a NE direction, bounded in the N by the mighty chain of mountains that we had long noticed in the NE. In the $S$ the valley changed to low hills with long, gentle slopes. We could see several villages and a few trees at the bottom of the valley. After 60 li Chulo with 700 houses, partly fortified. Here the same plants are grown as at Tatung with the exception of opium. Average crop to fold. io head of cattle, 20 horses, a good many donkeys and 200 sheep may be calculated per 100 tja. The slope was stony. Close to the village a dry river bed. - SE. After 80 li Ehr-shih-li-tui-tzu with 25 houses. We passed a couple of dry beds going SE. After 87 li Shih-changpo with too houses and al 90 li Wanguar chung with 250 houses. The ground was level and the road good in spite of large patches being under water. Here, too, the same plants are grown, except opium. Average crop 9 fold. There are 15 oxen, 30 horses, 40 donkeys and 60 sheep per 100 tja. - Snow from the 9 th to the 2 nd month, $5-6$ inches deep; plenty of rain from the $4^{\text {th }}$ to the 8 th month; NW burans in the spring.

We went on in a NNE direction. The landscape was comparatively shady with long rows of planted trees. After 3 li the village of Yahaliang with roo houses. The ground on the left of the road ascended slightly, on the right it dipped a little towards a river that could be seen sparkling in the sun about half a mile away. The Chinese call it Ta ho and no other information was obtainable. Of course, it flowed in the same direction as our road. After io li Peishaliang with 100 houses, 15 li Yang Ehr tsun with 20 . For a time our course was almost $N$. We drew considerably nearer to the mountains in the N. After covering about 24 li , the distance dividing us from them was $2-3 \mathrm{li}$. At about this place they dipped considerably, probably intersected by a gorge. A little further on they rose again to a considerably greater height and continued in an E direction. The road led on to the ENE, a direction it kept to during the rest of the day.

We reached the town of Yangkao hsien after travelling 30 li . For the last 7 or 8 miles a river, 15 feet wide, wound on the left of the road. Shortly before, we passed a small cemetery, enclosed by a wall, the crosses indicating that it was Christian. The more or less authentic bones of martyrs, who perished in the Boxer rising, probably rest there. The town is built in the form of a square and is surrounded by a dilapidated wall with 3 buttresses between the gates and the corners. Each buttress is surmounted by a brick tower falling into ruin. The area round it is open and unprotected. The population of the town is said to amount to about 3,000 tja, exclusively Chinese. The houses are dilapidated, the streets dirty and the shops poor. Small piles of logs on the pavement outside the houses indicate that the surrounding woods are made use of. The average crop in the district is said to be 10 fold. It is remarkable in this locality that opium growing is entirely forbidden. The mandarin is reported to have made trips to convince himself that his orders were being obeyed and to have had the plants pulled up in the fields in which poppies had been sown - a unique case in Shansi.

The mountains in the S looked considerably higher than before. After 50 li Ehr-shih-li-pu with 100 houses. There and at Yangkao hsien the same crops are grown as at Wanguar chung. Per 100 tja there are 15 oxen, 100 horses and $20-30$ donkeys. We crossed the river on the left. It flowed in 2 arms, 14 and 7 feet wide and fairly shallow. After 58 li another dry river bed, going $S$, with a good many trees. After 60 li San-shih-li-pu with 200 houses, 70 li Ehr-shih-li-pu with 150 . We crossed a small river. At 75 li we came to Shih-li-pu. The valley had grown much narrower and was now probably not more than 7 miles in width. The mountains in the N were mighty, and those in the S also considerable. In front of us we caught sight of the town of Tien chen hsien. Lower mountains rose up behind it and closed the valley entirely. Sparse villages and trees could be seen in the distance grouped close to the mountains. During the whole journey we passed a number of dry river beds and slightly marshy places, more pronounced close to the town. The road was soaked by the rain; wheel-tracks deep.

After 83 li Chihlitu, an insignificant village. After go li Tien chen hsien, a town of the same size as Yangkow, i.e., with 3 buttresses between gates and corners and a wall in good condi:ion. The surrounding area open, without any protection. The river $1 / 3$ of a mile to the N ; we had to cross it again a few miles before getting to the town ( 40 feet wide). The population is said to amount to about 4,000 tja. - There are no restrictions on opium growing. The tax is $3,3-2$ taels per mou according to the quality of the soil. Opium and accessories for smoking are sold, but there are no places for smoking. - Millet, gaolyan, tchumiza, shuza, peas, mustard, hemp, red kunsjut, wheat, opium, rice and potatoes are grown. Average crop 8 fold. - Snow from the 9 th to the 3 rd month, up to 5 inches in depth. $N$ storms are prevalent in spring

July ${ }^{\text {8th }}$. We started this morning in pouring rain. The main direction during the 80 li to-day Hwaianhsien. was ENE. Occasionally the road went ESE for a time, then again more to the north. The first 4 li were along a narrow water bed with little water. After 8 li we crossed a fairly broad river bed that was practically dry. The village of Tochiatun, widh 100 houses, lay
on the other side of it. The ground now began to ascend slightly towards the hills that we saw yesterday E of the town. Some lower mountains had wedged themselves between the road and the chain of mountains on the left, their most projecting part tending towards the W . The road had become stony. After 20 li the village of Tachaushang with 80 houses, intersected by two deep ravines, crossed by stone bridges. The ground dipped slightly for a time. The road ran between walls of soft earth, was full of holes and cut by such deep wheel-tracks that the arbah sank to the axle. It threatened to capsize any number of times and once it actually did so.

After 25 li the village of Tatchiatsung with 30 houses and after 30 li Heitchiarien with 50. Just beyond the village we crossed a stony river bed, about 50 yards wide, between high banks of soft earth. Its direction S-N. Another river bed, also practically dry and of about the same width, joined it. The road ran along its bottom for some time. A deep sunken road, full of holes and very rough during the rainy period, took us over a ridge or terrace-like hill of löss with gentle slopes. The arbah was in danger of getting stuck in the road. After 40 li Szeerhling with 100 houses. Here we halted and sent back two horses to help pull the well-nigh empty arbah which arrived at last, having taken fully 7 hours to cover these 13 miles. The amount of energy required to obtain two horses in the village in this pouring rain can only be realised by those who have travelled in the interior of China. Having drunk tea, warmed ourselves and fed the animals, we continued our journey. - Millet, tchumiza, shuza, jumi, wheat, peas, red kunsjut and potatoes are grown in the village. Opium is said not to be grown there, though it is grown in the district, for during the journey I saw a few opium fields. Average crop 7-8 fold. - There are no horned cattle, but about a dozen horses and about ion donkeys.

For io-I 5 li the road now became sandy, stony and rocky, running along the bottom of an almost dry river bed or along the ledges of the banks, on which the wall of rock was exposed. After 45 li Chötierh with 200 houses, after 55 li Liushutuan with 70 , after 60 li Nachia with $60-70$. A little further on the ground again became very deep and full of holes. Large patches had been turned into regular lakes. Destruction in the form of large holes lurked below the quiet surface of the brownish-yellow water.

After 73 li , having crossed a small river, we came to Chihli-chia with 16 houses. We could see the town now. In order to reach it, it was necessary to wade for a couple of miles, the water which had submerged the road reaching, in the best of cases, to the horse's belly. After Bo li Hwaian hsien, Sincheng the westernmost district of the province of Chihli along this road. It is the residence of a mandarin subordinated to the Suanhwa fug. The population is said to be about 2500 tia. Millet, tchumiza, gaolyan, wheat, red kunsjut, mustard, hemp, peas, jumi, potatoes and opium are grown. Average crop 9 fold. Snow from the 9 th to the 3 rd month, up to 16 inches in depth. Rain from the 4 th to the 8 th month, plentiful in the autumn. W storms in winter and spring. io oxen, 2 horses, 100 donkeys and roo sheep per roo tia.

Our course was ENE. After 3 li we crossed a dry river bed going S—N. The banks July were of stone, the road sandy and heavy. Immediately after, we crossed another river bed. Sank


The author, Lukanin. Thaw and Li at Kalgan.

We turned off the highway and took a road that was said to be better, but the latter was also indescribably cut up and bad.

After 15 li Ehr pa tau with ${ }_{5} 5$ houses in a cultivated cleft. On we went to the NNE along the bottom of a cleft. After 18 li Muoniwan with $20-30$ houses, 20 li Tiucheng Hwaian with $70-80$, after crossing a broad bed with 2 arms, 7 and 14 feet wide and of only slight depth. The road now went along a sunken road. After 23 li Santa lien with 3 houses near the bank of the Hung to shuigo. It was said to come from Nasago near Huai an hsien. The river, flowing in 2 arms, 70 and 20 feet wide, had to be crossed incessantly throughout almost all the rest of the journey. The bottom was sandy. At first its depth was only up to our ankles, but towards the end of the day it came halfway up our legs. Our course was now NE. After 30 li San-shilh-litien with 70 houses on the right bank of the river, alter 35 li Taiping chang with 200 on the opposite side. Millet, tchumiza, wheat, jumi, rice, kunsjut, mustard, peas and opium, average crop 6 fold. There are no oxen in the village, but 20 horses, 50 donkeys and 40 sheep.

The mountains now became more and more stony and rocky. On the right bank, in particular, they were large with very rugged outlines. The right ledge of the bank was $1_{5}$ feet in height. There was tilled land in the valley. After 40 li the village of Hsia Chiatun with 40 houses and at 45 li Chochia kou with 30 . - We met many people on foot carrying birds in large cages, wrapped in cloth. After 55 li Hsia kou yuan with 150 houses. We were now out of the mountains. The right bank alone still had some low mountains. In the distance, in front of us, a large valley opened up, in which the broad ribbon of the Yang ho could be seen sparkling. After 65 li Huchiatun with 200 houses. A little further on, on the left, on the opposite bank, Tsuowei, formerly a town with walls and towers, with a population of 800 tja . After 73 li Sanlitai with $80-90$ houses, where we spent the night under a common arch in the löss, as draughty as it was long. Millet, tchumiza,

gaolyan, wheat, jumi, peas and rice are grown here. Average crop 6 lold. There are ne oxen in the village, but about 30 mules and $3-4$ donkeys. -.. Snow from the ght or forh to the 3rd month; 5 inches in depth. W storms in winter and spring.

We continued down the river valley along small roads that were reported to be better than the highway, but left a good deal to be desired. It had been raining again during the night. The roads were covered by a regular sea of mud. After about 5 li we desconded into the valley and had left the last rise in the ground behind. Here lay the village of Saholung with $3^{0}$ houses. In front of us, on the opposite side of the valley, there was a chain of mighty mountains. We reached the river Yang ho a short distance from there. It flowed in 3 arms, 20 , 110 and 330 fect wide. At the greatest depth the water came up to the horses bellies. The current in the middle of the riser was fairly swift, the bottom sandy. The bed of the river was about $1 / 3$ of a mile in width. The direction here was NW-SE. A little higher up the contluence of the Hung to shui ho with the Yang ho could be seen. After 8 li Taizadjuang with 250 houses quite close to the river bank, 20 li Changlang with 100 houses, and 25 li Chihchia chuang with 200 houses.

The road runs along the foot of the hills of stone, sand and gravel that we had reached on the left. Further north they change to fairly high mountains, rocky and beautitul. About 8 miles in front of us two projections of the mountains approached each other to form a sort of gateway, behind which there were other masses of mountains, unusually beautiful with their dark granite sides, numerous peaks and picturesque spurs. The long, sloping surfaces and crevices were covered with grass. The valley was compressed more and more until it ran northward between spurs of the mountains in a very narrow tongue. It shone in shades of lush green. Some leafy clumps of trees prevented our seeing the town, which must have been quite close. Occasionally we could see a grevish-
yellow river bed appearing through the verdure on the right. After 35 li Shih tu tsun with 30 houses, after $3^{8}$ li Koumiao-tzu, a little temple built on a spur of rock and a couple of houses.

Now we could see a stone bridge of modern construction at a distance of a few li. A little further on we caught sight of the first houses of the town. Its situation was charming, shut in between the dark mountains with other mountains in the background. The town wall was thickly surrounded by buildings, so that only a glimpse of it could be seen. We went along a street that rounded the wall from the E and continued for several miles northward between rows of shops, that thinned out at times, only to combine again a little further on into a dirty, but noisy Chinese bazaar street. It is merely necessary to take a ride through this long and narrow town to realise that the place carries on very lively trade. The rows of shops are interminable.
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[^0]:    1 now Gorkis.
    2 now ${ }^{2}$ Leningrad.

[^1]:    A group of Bukharians at Zirabulay railway station.

[^2]:    ${ }^{1}$ Used as coin, actually a lump of silver of varying size, slightly boat-shaped and corresponding to the bottom of the vessel or crucible, in which the silver is melted. In French mingot d'argent."

[^3]:    A ruin al Kelpin, photographed on the inside
    from the E corner.

[^4]:    URUMCHI
    Wall with parapet 3 fathoms high of unbaked bricks. No protected space outside it. Fosse neglected, in places built of pieces of stone, $21 / 2$ fathoms wide, $11 / 2$ fathoms deep. Wall projections $21 / 2-3$ fathoms deep, 1 - 1 I/2 fathoms wide, of unbaked bricks. Corner projections slightly wider and of same height as the wall. Gate projections very large, of baked bricks. Massive gates of wood covered with iron. A gun covered by boards is placed on each of the corner projections. Wooden towers with several roofs above the gates. - Division into quarters inside the wall. The streets run $N-S$ or $E-W$. The yamens of the Futai and Dzian Dziun have tall masts decorated with baskets. - The wall of the $S$ part of the town is about 2 fathoms high, neglected and breached in places. Fosse small and lacking in a couple of places. No wall projections. - Eplanade open to the NE, F. and SE. Probably, too, to the $W$ owing to the fact that the fortress lies on the edge of a slight eminence. In the $N$ there is a chain of hills which commands the fortress and $\mathbf{N}$ of which a level, tilled plain extends. It is flanked in turn by larger and less accessible hills in the $W$ on the other side of the river. - Drawn by the author.

[^5]:    ${ }^{1}$ The Mongols are said not to be subordinated to the mandarin at Barkul.

[^6]:    high, with a crenellated parapet and a fosse, about $21 / 2$ fathoms wide and $1-1 / 3$ fathoms deep, which is flanked by the gate projections and partly by other wall projections. Covered clay buildings, 2 between the wall projections, 3 between the corners and gate projections and i on each wall projection, all with a gun embrasure facing outwards, are built on the ramparts. Above the gates the usual towers of wooden lattice-work. The wall is of unbaked bricks and in good preservation. The gates are of logs with iron fittings, enclosed in arches of baked bricks. In the archway from gate to gate 44 paces. The N and S walls of the fortress are 68 o paces in length, the E and W walls 620 . Infantry barracks in the NE corner. The yamen of the district near the W gate. The bazaar street joins the NW corner from the W . The N wall is adjoined at a short distance by a not quite connected group of houses. W of the SW corner a few single houses. SW of it a small space surrounded by a massive, high, crenellated wall. Communications in the town are good. - Huisheng, the Cart town, is surrounded by a wall of irregular height and shape with innumerable wall projections. The greatest height near the yamen of the Prince is about 9 fathoms, in other places 3-4. It has a crenellated parapet, but the ramparts appeared to be narrow and L saw no ascents. The space inside the wall is densely populated and communications are difficult. In the WNW a large group of buildings containing the mausoleums of the princes. - The ground is a level, tilled plain with single houses, small groups of trees and single trees. In the W and N the desert begins at a distance of $1-1 / \mathrm{l}$ mile from Laocheng. The rivers on either side of the fortress flow in small gullies which do not provide cover. -- Drawn by the author.

[^7]:    frequently with large gaps, more or less regularly in the direction indicated on the plan. The NE corner of the space and the ground next to the N and E walls is occupied by large ponds surrounded by a large swamp. The Tidu's yamen and telegraph station in the NW part of the town. In the SW corner the pu and matui impanjes and groups of buildings - Drawn by the author.

[^8]:    About 15 li from Shui-Chuan-tzu we reached the group of mountains we had seen in the E , which proved to be the E side of the valley, coming from the SSW, in which the village lay. Shortly before it we crossed another dry gravelly river bed. The southernmost tip of the mountains is intersected by the road which then runs almost due E. Here the hills consisted of a group of mounds of soft outline. A low creeping plant and a little grass grew here and there on the gravelly surface. I was tempted into the mountains by a small herd of gazelle which appeared suddenly among the mounds on the left of the road. For a couple of hours we rode over a succession of low hilltops in a pronounced easterly direction, crossing deep valleys from time to time. The mountains changed to an ENE direction and retained their character of a cluster of conglomerate hills lightly covered with vegetation. The further we proceeded to the east, the higher they were, though they did not assume mighty proportions. Fortune did not favour our shooting. We saw no more gazelle and we missed a couple of wolves which fled precipitately from the top of a hill on catching sight of us. From the summits we had a wonderful view of the wide valley of the Bei li ho, coming from the SSW. It was separated from yesterday's valley where the village of Shui-Chuan-tzu lay, by the group of mountains, the southern part of which we had just crossed. At a short distance from the foot of the mountains the river winds in several branches, traversing cultivated, low-lying, bare ground with a house here and there, enclosed by high walls. There were large frozen patches on many of the fields. The southern (right) bank of the river is higher and forms a wide terrace from which the Nanshan mountains risc in the S. Far to the SSW, as if at the bottom of the Bi li ho valley, a bit of a higher, white-topped chain of mountains was visible. The road ran between the river and the foot of the mountains, gradually approaching the river. We reached the latter at the village of Humiaotzu tun, a place of about a dozen tia. A small river, Young Chang-tzu ho, which comes from some springs about $2 / 3$ of

