# **JOURNAL**

of the

# WEST CHINA BORDER RESEARCH SOCIETY

Vol. VI. 1933-1934

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L. G. Kilborn

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### **CONTENTS**

Foreword Programmes of Open Meetings, 1933-1934; 1934-1935. Officers of the Society

Presidential Address, 1933. W. R. Mor	rse i
Presidential Address, 1934. A Resume of Border	
Research and Researchers. S. H. LILJESTRAI	nd viii
Travellers in West China. A. J. Bra	CE XX
Missionary and Other Experiences on the Indian and	
Tibetan-Chinese Borders. J. NEA	
Free Translation of a Stone Tablet at Lifan. T. TORRAN	CE 22
A Summer Collecting Trip among the Ch'iang	
People. D. C. Graha	
A Meteorite Crater in Szechwan?  J. H. Edg.	
Missing Links. J. H. Edg.	ar 29
The Basic Spiritual Conceptions of the Religion	
of the Ch'iang. T. Torran	c <b>e</b> 31
Two Tibetan Rivers: The Wi Ch'u and Li Ch'u.	
J. H. Edg.	ar 49
Pygmies on the Salwin. J. H. Edg.	ar 52
The Names Zhara or Chara J. H. Edg.	ar 54
Prehistoric Remains in Hsi-Kang or Eastern Tibet.	
J. H. Edg.	ar 56
A Note on the Characters 吐番 J. H. Edg.	
A Note on the Use of Stone Implements in China.	
J. H. Edg.	ar 63
The Revolution in Szechwan, 1911-1912. S. C. YA	
University Beginnings. A Story of the West China	
Union University. J. Bek	сн 91
Persistence of Custom as Illustrated in the	
Collection of Han Dynasty Clay Images in the	
West China Union University Museum. D. C. GRAHA	м 105
Among the Foothills of the Chinese-Tibetan	100
Border. A. J. Bra	ce 107
A Preliminary Report of the Hanchow Excavation.	02 101
D. C. Grah	м 114
The West China Union University Museums.	7M 11.2
D. C. GRAHA	лм 132
An Artifact (?) from a Lantern Lens.  T.C. I	
The T'ien Ma. What is it?  A. P. QUENT	IN 140

Taxonomy, Distribution and Economic Importance of	
Chrysomelidae in Szechwan. I. Notes on Collecting	
Trips in South-Western Szechwan. W. C. Ho	142
II. The Chrysomelidae of Szechwan. W. C. Ho	146
A Preliminary List of Butterflies of Szechwan.	100
W. C. Ho and D. S. Pen	162
A Survey of Endemic Goitre, with Special Reference	
to the Gold Rivers District in the Chino-Tibetan	
Border Marches. S. H. LILJESTRAND	196
The Golden Age and the Dark Age in Hanchow, Szechwan.	
I. Fang Kung and the Golden Age	
V. H. Donnithorne	208
Nestorianism in Tibet.  J. H. EDGAR	245
The Ancient Yong (戎) and Possible Survivals in	
Szechwan. J. H. EDGAR	246
A Suspected Manicheistic Stratum in Lamaism	
J. H. Edgar	252
Language Changes in West China.  J. H. EDGAR	258
Book Reviews	263
Szechwan, its Products, Industries and Resources.—Sir A	
ander Hosie.	11CA-
The Three Crosses in the Purple Mists.—W. R. Morse.	
Tu-fu, China's Great Pcet.—A. J. Brace.	
Travels of a Consular Officer in Eastern Tibet.—Sir	Eric
Teichman.	
High Altitudes.—J. H. Edgar	
The Nosu Tribes of West Szechwan,	•
Travel and Researches in the Interior of China E. C. B	aber.
Minya Gongkar. – Arnold Heim.	
Berthold Laufer	283

# PROCEEDINGS of the West China Border Research Society.

Report of the Secretary	i
Report of the Executive Committee	ii
Report of the Editor	iii
Report of the Treasurer	iv
Minutes of the Annual Meeting, June 9, 1934	v
Methods and Equipment for Research on the China-Tibetan	
Border. D. C. Graham	viii
List of Members of the Society.	χV
Index	xiv

## FOREWORD

Readers will notice that this volume is dated 1933-1934, in spite of the fact that the Society has determined to issue its journal annually. The date merely expresses our desire to have our Journal issued on time. The first annual volume was issued in January 1934, but bore the date of 1932. This, our second annual volume is issued one year later, but rather than have it apparently a whole year late, we are making it cover two years, and in the future each volume will bear the date of one year only. Volume VII will thus bear the date of 1935, and will appear at the end of the year or early in 1936.

A new feature of this Volume is the section devoted to Book Reviews. It is hoped that this Journal will become the most complete source of information on West China, and so we are including reviews of old as well as new books. Chinese as well as Western

tooks will be included in future numbers.

A second new feature is the inclusion of the Society's Proceedings. These will be found at the end of the volume, and will be of interest to those who have the wellfare of this Society at heart.

The two Presidential Adderses included in this Volume indicate the manner in which Christian missionaries have contributed to the progress of learning in West China from earliest times to the The vast majority of the members of this Society are missionaries. The charter members were all missionaries. The West China Union University, which is the source of much of the Society's financial and other support, is a missionary institution. It is also a great scientific centre for all West China. We very much doubt whether any other institution West of Nanking can compare with it in scientific equipment and in scientific spirit. This leads us to recall a sentence in a Shanghai Newspaper regarding the previous Volume of this Journal. The reviewer said of a certain article on religion that it was "really more suitable for a missionary publication than for the journal of a learned society." In West China at least we do not consider religion outside the bounds for a learned society. Religion is one of the primary elements. in civilization and culture, and its study is an integral part of anthropological research. It is true that some of the studies conducted by members of our Society are reported as possibly affecting the Christian missionary enterprise in one way or another, but the missionary who is anxious to render a full and complete report of his observations can hardly avoid some reference to their bearing upon what he considers to be his primary work in this country. Modern science was largely introduced into China through the Christian missionary, and today the scientific spirit is being fostered in many a Christian institution to a very marked degree. In fact science in China would suffer an irreparable set-back were the

Christian centres for scientific work in Peiping and Shanghai, in Nanking and Tsinan, in Canton and Chengtu removed.

Once again we wish to record our appreciation for the grant from the Harvard-Yenching Committee of the West China Union Without this generous assistance the inclusion of as University. many plates and wood cuts as we have in this Volume would be impossible. We are expecting even more complete cooperation in the future, for it is expected that the Museums of the west China Union University will make this Journal their chief medium of publication. The Museum of Art, Archeology and Ethnology, which is financed by the Harvard-Yenching Committee has now what is probably the most complete collection in existence of West China border material, illustrating the culture of the Tibetans, Ch'iang, Nosu (Lolo), Miao, and other non-Chinese races of West China. In addition, its collections go back to prehistoric man and also to the very early days of Chinese occupation of this region. The article on the Hanchow excavations in this volume is but a beginning of the series that we expect from the director of this Museum.

With the issue of this volume the present editor makes his exit from the scene, and a new editor, Prof. William G. Sewell, comes on the stage. We are sure that the Journal will continue its progress under his guiding hand, and that its field of usefulness

will become even greater than in the past.

Finally, the retiring editor wishes to record his sincere thanks to those who have spent much time and effort in the preparation of this Volume, but most especially to Rev. John Kitchen of the Canadian Mission Press, who has done more than his share to ease the many burdens that an editor of such a Journal as this must bear.

# PROGRAM OF OPEN MEETINGS

# 1933-1934.

Sept.	29	9-30 Art Exhibit, conducted by Mrs. W. R. Morse
Oct.	21	
Nov.		3 The Minya Kung Ka Mrs. R. A. Peterson
$\mathbf{Dec.}$	16	General History of the Nestorians H. D. Robertson
		The Nestorians in Szechwan Province Liu Li Shien
Jan.	27	
Mar.	10	Chinese Art L. C. Walmsley
		Mrs. W. R. Morse
		Mrs. F. Dickinson
Mar.	31	
April	21	Nutrition and Oral Disease Amongst the
		Tribes People
		Moving Pictures of Tribal Life R. G. Agnew
16	10	Mary Caldwell Agnew
May		The Ch'iang People T. Torrance
June	9	Annual Business Meeting President's Address S. H. Liljestrand
		Methods and Equipment for Research on the
		China-Tibetan Border D. C. Graham
		China-Thetan Bolder D. C. Grankin
		1934-1935.
Sept.	29	Reports of Expeditions during the summer of
•		1934 by members of the Society H. D. Robertson
		R. Orlando Jolliffe
		W. R. Morse
		David C. Graham
Oct.		Tu Fu, the Bard of Ts'ao T'ang Ssu. A. J. Brace
Nov.	24	Through Unexplored Regions of Hsiang
		Cheng in 1907—(a Visit to the Ogre's
_	_	Den). J. Huston Edgar
Dec.	1	Botanical Specimens From the Hsi Kang
т.	4 -	Region, Dr. Harold Smith
Dec.	15	The Golden Age and the Dark Age in
		Hanchow, Szechuan—Nestorianism in the
		T'ang Dynasty.  V. H. Donnithorne
Jan.	10	Chinese Boxing—a Lecture and an Exhibition,
Juii.	10	Clarence Vichert
Mar.	16	Animal Symbolism in Chinese Art. S. H. Liljestrand
Apr.		The Natural History of Szechuan Province.
p		Ho Wen Chuin
May	18	Land Settlement and Taxation in China.
•		Gerald S. Bell
June	1	Annual Business Meeting.
		President's Address. A. J. Brace
		Lecture by Dr. Lucius Porter.
		Business Session.

### **OFFICERS OF THE SOCIETY**

### 1922-1923

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Vice-President

W. R. Morse G. G. Helde

Secretary

E. Dome (resigned Dec. 8, 1922)

Treasurer

A. J. Brace (from Dec. 8, 1922) D. L. Phelps

J. Hutson (resigned March 10, 1923)
J. Beech (from March 19, 1923)

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1924-1925

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1925-1926

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G. G. Helde

1926-1929

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Treasurer: H. D. Brown

L. G. Kilborn

1929-1930

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A. W. Lindsay

1930-1931

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T. Torrance

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President: D. S. Dye Secretary: L. G. Kilborn Vice-President: S.H. Liljestrand

Treasurer: D. L. Phelps

F. Boreham

### 1932-1933

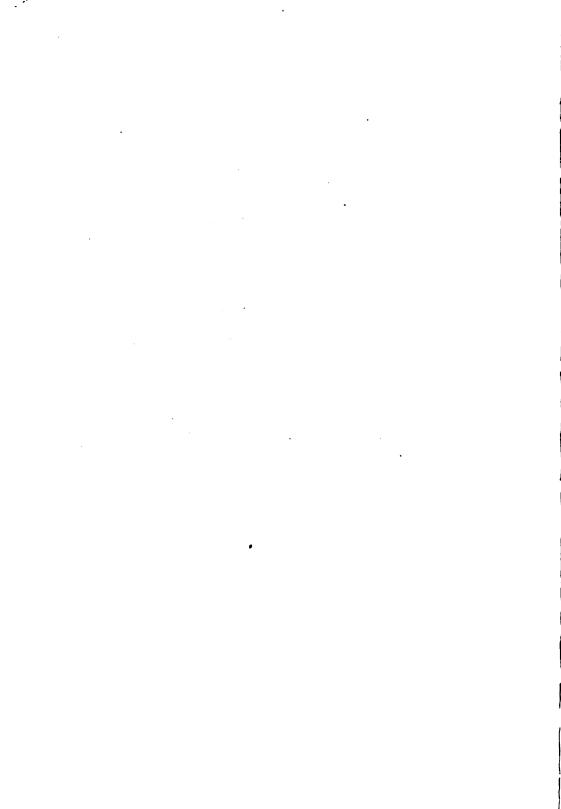
Honorary President: J.H. Edgar President: W. R. Morse
Vice-President: S. H. Fong Secretary-Treasurer: A. J. Brace
Editor: L. G. Kilborn F. Boreham

### 1933-1934

Honorary President: J.H. Edgar President: S. H. Liljestrand Vice-President: S. C. Yang Secretary: D. C. Graham Treasurer: W.B. Albertson Editor: L. G. Kilborn W. R. Morse

### 1934-1935

Honorary President: J.H. Edgar President: A. J. Brace
Vice-President: S. C. Yang Secretary: D. C. Graham
Treasurer: W.B. Albertson Editor, Vol. VI: L. G. Kilborn
Editor, Vol. VII: W.B. Sewell S. H. Liljestrand.



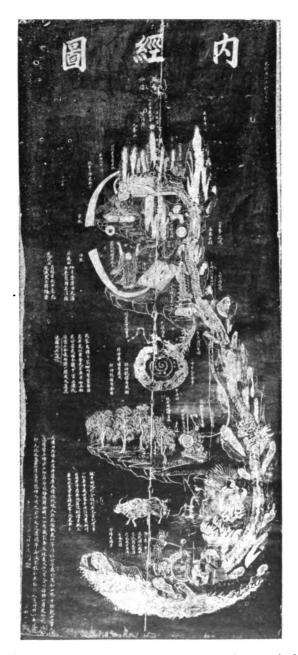


Chart of Internal Paths, showing the Taoist theory of physiology.

According to this theory, the energy in a man's body is first collected in one spot (the field on the chart) through concentration of the mind, then circulated in the body along these paths, notably along the spine, and finally united with the soul itself to enable it to exist independently of the body. Two of the verses here illustrated are taken from the works of the Taoist immortal Lü Yen 呂殿 of the Tang Dynasty. The chart is of unknown origin. The copy which is here photographed was first printed in 1886. The original block is still kept in Pei Yün Kuan 白宝河, Peiping, the largest Taoist temple in China, as old as Peiping itself.

### PRESIDENTIAL ADDRESS.\*

### W. R. Morse

To the members of West China Border Research Society and its Guests. Ladies and Gentlemen:

I thank you very cordially for your kind tolerance in allowing me, during the past year to occupy for the third time the honoured position of president of this society. The duties have not been onerous, and I have really delighted in attempting to perform what I thought was required of a person in such a position.

Mr. Brace has been a cheerful, hard-working efficient secretary-treasurer and to him much appreciation is due. Dr. Kilborn has carried out the duties of editor in his characteristically incomparable way. My regret is that I have not carried out my duties with a better procedure. I do not know who the new president will be, but whoever he may be the torch will be carried by one more capable than I am.

The W.C.B.R.S. is not a bundle of unrelated activities—the work of its members has been and is varied but there is the golden thread of a single purpose uniting us all—true scientific research. Our Society was organised on March 24th, 1922. The initial expedition of some of its members was in the summer of 1922. We first met together as an organisation on October 28th, 1922. We made our bow to the public on January 27th, 1923. Article ii of our 1922 Constitution states "the purpose of this Society shall be the study of the county, peoples, customs and environment of West China especially as they effect the non-Chinese". This original purpose has never really been deviated from, for it included both Chinese and non-Chinese but the main interest of the charter members was aimed chiefly towards the aboriginal tribes country.

The original membership was limited to 25 members in Chengtu. In those days before the depression lifted its ugly head we talked glibly of expenses and freely paid extra assessments to get out our Journal.

Our original purpose was theoretically limited; now our viewpoint is enlarged so that we endeavour to make accessible to all interested a knowledge of the literature, history, science, art, anthropology, ethnology archaeology, etc., of West China and its Borderlands.

The diverse civilizations of West China have some common principles underlying all of them—the correct interpretation of which will go far in historical and ethnological information. These cultures and civilizations are best studied in a comparative manner and

<sup>\*</sup>Delivered at the Annual Meeting, June 3 1933.

China is famed for her historical records. not as isolated units. is true and quite natural that they emphasize China and the Chinese, but although prone to look down on alien peoples they nevertheless are extremely valuable documents and in most cases are the only available ones. It should be part of our duty as far as possible to translate and preserve them in English for the benefit of the whole scientific and literary world. The Chinese are not a homogeneous race; they are heterogeneous and perhaps especially so here in Szechwan, where the descendants of the Yellow Emperor came relatively late in Chinese history. The first real invasion of the so-called original Chinese was about 200 B.C. and was not numerically large. It was long after A.D.1, before Szechwan became an anthropological unit in the complex Chinese racial type. south and south-west China there has been an undoubted intermixture with aborigines. The ethnology of the Chinese includes that of the outlying civilizations and races, especially in and on the margins of the three provinces of West China. Comparative and selective studies are essential to the solution of this attractive and important problem. "No one character distinguishes a people but a certain group of characters signifies racial types".

There are several racial types in West China and work is being done to differentiate them. We who are honoured by living in this great and isolated province have a unique chance to gather vitally useful and essential information on all the cultural aspects of Chinese and of non-Chinese.

The first dinosaur in China was found by a missionary in South Shantung. In all countries much of the development of natural history and ethnology has been through amateurs; and in China many of them have been missionaries. Discovery and research in China is easy, the country is literally alive with objects of scientific interest and with problems for solution. With good will, enthusiasm and unbiased explanation and consultation with the Chinese an immense amount of useful work can be done. But we must be serious amateurs i.e., persons at work for the sheer love of it. Not only satisfied with aesthetic enjoyment of nature but also we must learn to record our observation with accuracy.

Do not let enthusiasm be dampened by the fact we do not know much. Some teachers are indifferent, perhaps neglectful or lazy. They fill in time in teaching well-but never create. There are men who have the ability and means for investigation yet who do not realise the value of recorded published personal work and do not write. They are going to do so "sometime," in the future.

Some are sleepy contemplators who have the religious and aesthetic senses highly developed but—practically they are weak in pragmatic application. Others read voluminously and become everyclopedic; in a sense they may not be lazy but are frightened to write and are averse to seminars and the laboratory. Such teachers know but do not do.

Others are sympathetic; they study much; they do personal intensive work; they actively overflow with the desire to do much—fundamentalists in practice;—they hope miraculously some day to do something big—but meanwhile some one else writes the monograph!

We cannot all be famous but we all can attain to certain higher levels. In the beginning it was our duty to strongly emphasize and develope the spark in us all for exploration and research—to go out and do something—but now the spark we helped to fan has become a fire and the emphasis must be laid not so much on general information but the field must be delimited to specific problems. No one can ever master any small problem except temporarily, for as we live and grown, we expand with rapid growth in science and the goal of a scientist is never reached; we are continally advancing and merely approaching the receding goal. The more we learn the more we have to learn. A scientist is a slave, whose chains not of steel but silk, bind him as long as mental life last to press on and on.

margins fade Forever and forever as we go?'.

Pioneering in any field is necessary and useful although it may be dangerous and occasionally demands great courage and skill. The exploring scientist faces harsh realities in a concrete world of facts. He should have will, courage and ability to face difficult and unusual things. Tsamba and buttered teakeep the body alive but as sometimes make the nose twitch and the soul revolt. We may theoretically love a tribesman, but unwashed clothes that have been worn for decades with their generations of lice, fleas and bedbugs are neither attractive nor beautiful.

Pioneering is preparing or opening up a new way for others to follow. When they way is opened and established through proper care and preparation, if there be expert handling with intelligence initiative and luck, then a variety in plan and objective is not pioneering and unless rare intelligence is used this so called pioneering becomes monotonous, is dangerous and may be useless.

The pioneering days of this society are not yet ended. Our earlier pioneers have set a fire which has fanned the insatiable curiosity of some of our members into a flame of valuable scientific research. The spirit of curiosity is aroused; it is not yet all real scientific curiosity, but we as a society are irrevocably committed to a life long quest for further truth.

There is a real social and economic value to research. All research hinges on the knowledge that what is learned, can be applied to ameliorate, remove or remedy adverse conditions. Concerning the tests of results—results cannot be measured entirely in dollars and cents; they are too complex and widely diffused for any such reckoning.

What are the subjective values of our achievements? It is chiefly in developing the scientific spirit, which is on the one hand

indefinable and incalculable and yet on the other hand is real and

tangible. It is in essence a spiritual condition.

The utilitarian asks what things are to be accomplished by exploration, adventure and research in dangerous and uncongenial places; an answer is "that there is something in the spirit of man that urges him to attain the all but unattainable". It transcends financial gain, personal ambition and specific immediate results. It is the spirit that animates discoverers, pioneers and missionaries. Every leader possesses this urge.

What spiritual value accrues to all this labor? Science demands and requires unselfishness and devotation which calls out the finest qualities of the human spirit, and since its goal is truth it may be defined as one of the noblest aspirations of mankind. It can be said that true scientists spend their lives freely in helping those in need and in the cause of the spiritual unity of mankind. We are missionaries and the religious principle for which we strive are those which we as teachers, preachers and laymen can and should preserve by our actions as scientists. Education must deal with reality and the application of knowledge to the problems of every day life.

Modern science has its birth in studying nature by observation and experimentation. The real reward is in solving self selected

problems or the accomplishment of self appointed tasks.

Joy in the job, joy in the day's work, joy in doing things well are within the grasp cfall; it is a secret of research. Macaulay once said in effect, "that the world heaps rewards not (so much) on those who do what no one else has done, but on those who do best what millions do well."

Livingstone as a missionary was one of the greatest explorers and research workers in a nation renowned for such men. To some folk he seemed esoteric and individualistic but time has poven him

a great scientific evangelist.

I have frequently heard missionaries blame other missionaries because they neglected their "work"—went exploring and on trips, or used their time in research in the laboratory instead of teaching,—"so and so is off again on a trip, neglecting his work"—"he should be here attending to his business". I do not know of one final answer to this criticism—there are two sides to the matter. Both may be right. While either may be, neither should be a pig in the trough. Selfishness may be shown by anyone. And a person can easily and impulsively criticise harshly without proper justification.

What is our "work"? Intelligent investigation is of extreme importance to mission work and is invaluable. Because it differs from one's regular work it may still be valuable. If one does not want to go, or is hindered from going on a trip, do not thoughtlessly blame one who goes and spends time, energy and money on duties which to you may be seemingly unimportant but to another is

intensely necessary. Many if not all trips demand more physical and mental concentration than ordinary routine work and a man needs rest or vacation after a trip. "A trip during vacation is not necessarily a vacation. I plead simply for a recognized place for

exploration and investigation in our "work."

This society should be made one of Chengtu's (West China's) seats of learning, although we have no home of our own. Our society is not national but international we are cosmopolitan and catholic. Our pride is that this Society is a common meeting place for intellectual discussion. We hope that many of our guests may join us and assist in this worthy object of our Society. They themselves may not desire to do research but their membership is a testimonial and an assistance which the worker deeply appreciates and the nominal fees in the aggregate are of real assistance in bringing out our Journal. Our Journal is the one scientific medium which advertises and spreads through the world the information we have gleaned.

For years we have wished for a closer social and intellectual relationship with the Chinese. We have at present to bear with a supersensitivesness of Chinese psychology about our motives. This gives us a sense of embarassment at the misunderstanding of our aims. Our society has a common interest not restricted to foreigners,—it is irrespective of nationality. We must assist wholeheartedly in the better understanding of Western and Eastern cultures, especially since China is irrevocably committed—to a trial of modern science. Moreover we must realize and know more of the splendid social and intellectual qualities of the Chinese. Our society is not a centre for spies and militarists. The Chinese must be shown this is not so. I wish we might extend our Chinese membership; our interests are common and we must make them clearly known. We too are handicapped by lack of funds for exploration, etc. We intensly desire cooperation in every way with Chinese.

### A brief review of our years activities.

The list of papers delivered before the society this last year shows a catholicity of outlook that is wholesome and indicates concentrated study of a considerable variety of subjects. Our program shows abundant evidence of substantial many-sided interests. A very important thing is that all, or a majority of the lecturers are still engaged in further investigations on the same subjects.

The first publiction of our Journal was in 1922-23. There have been four issues. We now plan to issue a yearly journal. Our Journal from a modest bud appearing irregularly has become a full blown rose and is published annually. It is being sought for the world over by various intellectual societies and is greatly enriching the West China Union University Library through the medium of exchanges of journals, bulletins, etc. The spirit which called our society into being is given expression in the Journal;

it is the spirit the Journal wishes to foster and of which it hopes to be worthy. The West China Border Research Society Journal probaby puts this community more "on the map" in academic, scientific society and educational circles than any other one factor. It therefore deserves support.

Our society should cooperate very closely with Dr. David C. Graham in his museum activities. Dr. Graham is a collector of real note and in his field is an authority. Very few appreciate the extreme value of the work he has done. He is recognised by several institutions as a prominent scientist. He hides his light under a bushel, but the flame is very brisk and shines through his modesty. I am extremely glad we have him here in our midst. We can assist materially in his able and well directed efforts to found a museum of much more than local reputation. We could and should assist him in gathering specimus for a collection of West China cultures which could not be exceeded anywhere in the world.

This report would be woefully incomplete without some mention of trips during our vacation. Years pass very rapidly and from physical and financial reasons our expeditions must be limited, but those of you who have the lust for venturing and searching "Behind the Ranges" must work now and not put off this work for some future time.

A sense of achievement no matter how relatively small is always a desirable incentive. A man is a judge of two things, what he has done himself through hard and sometimes painful labour and what he sees some one else do that he really intensely wants to do. On our expeditions we must study a restricted field, and write what the people do and think and not what we think they ought to do and think. Would it not be a desirable thing for members, as for as pessible, to report to this society at its annual meetings what trips are proposed? Should they not state the purpose of trip and the scientific and or other problems involved? Should we not have scientific discussion of papers? Should not this Society procure certain equipment for those making trips—certain instruments, etc. that are too expensive for private persons to buy?

I think too, it would be very wise to have experienced members give us instruction in proper methods in reascarch, how to conduct field work, etc. The preporation of a scientific paper is important and the style is specific. Discussion on broad lines of literary styles would I think be helpful to us all.

I trust our association with the Harvard-Yenching Committee will be very intimate. We have very close interests. Our most cordial thanks are due that committee for financial help already given to the Journal and as a member of this Society I wish the close retationship of interests might be consumated by having a W.C.B.R.S. representative on the Harvard-Yenching Committee.

It is impossible to end this report without a reason for our optimistic hope. We have under trying circumstances made an excellent start, the out-look is very bright for future work.

It is, I think, a fair criticism to say that in most of the Chinese universities and perhaps particularly in her medical schools there is a predominating use made of foreign materials, and the medium, all to frequently though at times quite necessarily, is through a

foreign language.

Outside the study of purely Chinese literature the majority of the books used are in a foreign language, or are translations which are neither perfect nor complete. The subjects taught and the teachers are either foreigners or are foreign trained Chinese instructors, therefore, of necessity the point of view must be to a surprising extent from Western sources. China seems to have finally and completely given herself to the acquisition of western science she therefore, for a time, must accept the conditions as they are.

Laboratory equipment now used is almost entirely of American or European origin. It is true an increasingly large amount of scientific apparatus is being made in China, and largely through the Commercial Press a new Chinese literature is gradually growing up and a certain minority of her citizens are being taught through a first-hand knowledge of Chinese data and phenomena.

But while it is theoretically correct to have a cosmopolitan aspect and a large degree of freedom from racial traits and environment and life it is most desirable that much of the material of instruction be more Chinese in character. No national or other education can live without having its roots in the local environment and life; when it is otherwise the particular culture becomes more or less denationalized.

In the university with which so many of our members are associated we are attempting to train students to grapple with the practical realities of Chinese life. We are not yet sufficiently grounded in those facts. The members of this society are digging out Chinese material to teach Chinese students. Our graduates will spend their lives in China; their future success is proportionate to their ability to deal with Chinese material. In this society we are attempting to give science and the Chinese a realistic grasp of China itself.

The bedrock foundation of my enthusiasm for this society and my hopeful outlook is that we have reached, as it were, a beginning of the fulfilment of the hopes expressed above;

"Heaven is not reached at a single bound;
But we build the ladder by which we rise
From the lowly earth to the vaulted skies,

And we mount to its summit round by round."
"Hope ever urges on and tells us tomorrow will be better." Tibullus.

As hopes orise, are partially fulfilled and fade, we look forward to greater things, for as Shelley wrote—
"Through the sunset of hope

"Through the sunset of hope Like the shapes of a dream What paradise islands of glory gleam."

# A RESUME OF BORDER RESEARCH AND RESEARCHERS.

### PRESIDENTIAL ADDRESS\*

### S. H. LILJESTRAND.

The inquiring mind is always standing on the border land of discovery. Most of the Universe is still unoccupied, and there is room for all! We are particularly favored in West China by the nearness of many intriguing lines of investigation: the ethnology of the tribes and nomads; the physical geography of the Border marches; social and religious customs; of the non-Chinese states; the significance of plant, and animal life, and climatic conditions. Our Honorary President, Mr. Edgar, has spoken to us about "geographic control." There are many other factors and phenomena still to be studied. Significant work is being done by our first president, W. R. Morse, in gathering anthropological data; preliminary reports have been made on the medical botany of the Border.

For twelve years the West China Border Research Society has, without endowment or resources, other than the spirited interest and private enterprise of the members, carried on various researches into this Border life, and geography. The ethnology, anthropology, medicine, botany, religion, and sociology of the Border Marches have been studied and described in five volumes of the Journal of the Society. Each volume has grown larger and richer than its predecessor: and the editor makes a gratifying report of a large exchange list from many countries, and institutions, showing that we have touched points of universal interest.

A historical summary of expeditions into the Border Marches and Eastern Tibet takes in a period roughly thirty years before, and thirty years after, 1900. There had, however, been an "expedition" through "Tibet, Tartary, and China," and a book written on the same subject by the French, Huc and Gabet, in 1845, the book bearing the publication date of 1848. This was a work of great interest and value, and is available in the University Library, having been recently reprinted by the Lazarist Press in Peiping. Shortly after them came a priest named Renou from Ch'iung Chou. He paid for his going with his life, for he died on the Mekong River.

Active Period—The period of fairly intense activity began about 1870. In 1868 Cooper, an English general investigator, had

<sup>\*</sup>Delivered at the Annual Meeting of the West China Border Research Society, June 9, 1934.

arrived and done some botanical collecting. But the first great figure in botanical work, was a man with an interesting prelude to his life work. This was Potanin, after whom some species of plants have been named as their first discoverer, as for example the beautiful larch, Larix Potanini, peculiar to the border mountains as you go up and down the approaches of the higher passes. We have been told that Potanin had been a courtier in the palace of the Russian Czar but for some indiscretion had been exiled to Siberia. The Czar ultimately relented and ordered his release; but Potanin, like so many compatriots, had evidently decided that Russian court life and government was neither safe nor satisfactory, so he declined to return to Russia. He came East, and found consolation and new interest in life on the Tibetan border with its amazing flora and geology. He first came in 1872.

Potanin found another brilliant observer, Pere David, already on the field. He was a French priest who had been loaned to the French government for research expeditions. Pere David's knowledge of Eastern Tibet and the Chinese border became a mine of information which he generously shared. His two volumes on ornithology are of highest quality; and they are standard texts even now. Other French priests, like Des Godins and others, have made very valuable contributions to the geography, botany and linguistics of Eastern Tibet.

About 1878 Captain Gill, and his companion Mesny, arrived in West China. They blazed a trail over the now familiar route to Tsa-Ku-Lao and Song Pan. Torrance says they penetrated the Heh Shui country, beyond the Wa Boh Liang Tze, the great divide west of Maochow which has since been visited a number of times by Messrs. Plewman and Torrance.

Going westward, Captain Gill found the French priests firmly established at Tatsienlu, the "Arrow Forge", which was one of the focal points of the aboriginal states and of the colonial expansion of China under the Emperor Ch'ien Lung, a century before. Gill and Mesny also found the French at Batang and other points, as they pushed on to Burma, through the interesting but difficult exit on the south,—i.e., down the Salwyn River. Furthermore, Gill mentioned the "Po Gong Ka", the "Minya" of some later surveyors.

This expedition was followed shortly by another of romantic origin. Readers as old as the writer may remember the marriage of the New York heiress Consuelo Vanderbilt to the son of Count Bela Szechenyi of the then Austro-Hungarian nobility. The hero of this incident had been the unwitting cause of an expedition to the Border Marches and Eastern Tibet, for at birth he cost his mother her life; and this sad event so broke the heart of the lovely lady's husband, that he had to go away to try to forget his well-nigh mortal grief. The upshot was that in company with Lieutenant Kreitner and a geologist named Locy they spent a period of stud

among Eastern Tibetan scenes, which perhaps more than any other help to make a complete readjustment of outlook and experience for the traveller. Szechenyi measured the Po Gong ko (of Minya) correctly. About the same time Dr. Cameron of the C.I.M. went through Tatsienlu, to Talifu, via Batang. (See "Minya Gongkar") Vide Infra.

Americans now began to take an interest in the interior. Minister Rockhill made a notable journey in 1888 and wrote an erudite account of his findings. Protestant missionaries had meanwhile arrived (1880) in West China, one of whom, Spencer Lewis, pushed on to Chengtu and found a C.I.M. missionary already "occupying" there; the Rev. Virgil Hart, after 25 years in Central China, came in 1890, bringing Dr. O. L. Kilborn and others; but in such a vast field all that could be done, between popular uprisings, was to maintain a foothold until the Boxer Year in 1900, after which the situation crystallized and a coordinated Protestant Mission occupation began seriously to rival the French Fathers' long established missions. Ririe and Uperaft visited Tatsienlu, but it was opened as a Mission station by Polhill in 1897.

Meanwhile rather a long list of independent, or government-commissioned investigators followed Rockhill's visit in 1888. A procession of generals, princes, knights and scientists now came on in more rapid order. General Bower of H.B.M. Army came through from Lhasa. Pratt, a botanist, made a collecting tour, and incidentally collected butterflies. Also came Prince Henry, Duc d'Orleans; and an English Colonel appropriately named Manifold, with sundry companions. Sir Alex. Hosie in the early 80's spent three years in "Western China," and left a valuable record of his observations.

We are all familiar with, and immeasurably grateful for, the splendid work of the late Dr. Ernest H. Wilson, an Englishman who came as representative first of the Kew Gardens, and later of the Arnold Arboretum of Harvard University. He spent eleven years, all told, in several expeditions, with the early assistance of J. H. Edgar, in intensive study and collecting of most of the 15,000 species of plants in West China's Tibetan Border Marches. His contributions to English and American tree, shrub, and floral culture are beyond calculation.

Going through to Burma was already a popular feat. Dr. Assmy, with companions, went through, via Batang; Sir Reginald Johnstone via Muli. Amundsen had, however, preceded the latter to Tali, via Muli, many years earlier. A commercial expedition, from Lyons, France, came in 1896.

We now come to the end of the first half of this history, end-

ing as the Twentieth Century dawned.

The curtain now opened on new activities, of which the chief actor has been our Honorary President, J. Huston Edgar, F.R.A.I.,

F.R.G.S. Appointed by the China Inland Mission to a post at Romi Chrango, now named Tanpa Hsien, he visited this post in 1903, and was immediately initiated into border life by being chased out of the Geshi Valley by tribesmen who had not yet heard of Christian Missions. He saved his life by crossing the divide into the Mao-niu valley, throwing his pursuers off his trail. They were balked further by the fortunate destruction, by a cloud-burst, of the bridge at the mouth of their valley fastness, only 15 li (5 miles) above Tanpa, which Mr. Edgar succeeded in reaching safely by following the Mao-niu, or Yak River.

Thus our friend and here was simultaneously saved both to carry on thirty odd years (to date) of incredible work and journeys, and also to demonstrate that instinct for geography and natural observations which he acquired as a lad when living among the

aborigines of New Zealand.

Edgar has been intimately associated with most of the expeditions going into the West China hinterland of towering ranges, far flung plateaux, and terrible gorges, which form the physical setting for the weird and mystical social and religious life of the

complex called Tibet, on its eastern side.

From 1904, when Dr. Parry accompanied Mr. Edgar to the Badi-Bawang region of the upper Tong, or Great Gold River, until 1922 when the first expedition of this West China Border Research Society went into action, Mr. Edgar was "on journeyings oft and in perils many" and acquired a philosophy of the Border which has made him a recognized leader and contributor to a growing Eastern Tibetan literature. He embodies the characteristics of a true "researcher", catholic in his outlook, untrammelled by undue national prejudice, and with an unquenchable enthusiasm that carries others as well as himself through herculean travels and studies. Stationed with Mrs. Edgar most of the time at Tatsienlu, this has become increasingly a fecal point for expeditions in pursuit of various problems.

Previous to and following the formation of this Society in 1922 we may briefly glance at the scientific visitors to this region piloted by Edgar, such as the Stotsner expedition, including some botanists, and Weigold the naturalist. Colonel Bailey went through to India, accompanied by Edgar, who returned from Menkong on the Salwen. Since its organization, Edgar has rendered tremendous assistance to such efforts and meanwhile carried on personal studies of the Border which he has contributed to the Journal of this Society. How fortunate we are in this regard we have not yet fully realized. His dictionary of the Giarong language, now just out of the press, is a major contribution, issued as a supplement to this journal.

In 1903 Moyes and Edgar essayed the dangerous passage of the T'ong River valley from Washi-Kou to Romichrango, and succeeded in traversing this often roadless and dangerous territory. Moyes came out to Chengtu through the little traversed Muping mountain complex. The next year (1904) Parry and Edgar studied the Badi-Bawang Valley, Dr. Parry making casual observations on the great prevalence of goiter. In 1905, a Scot, Dr. Forest, passed over the Hung Ch'iao Pass and came out thttu Muping. In 1906 or '07 Brooke, Mears and Ferguson made remarkable journeys thru the Four States and Choskia, Brooke being eventually murdered in Lolodom.

As a result of Prof. Tom Smith's travels with Mr. Edgar in 1907, the latter was nominated and elected a Fellow of the Royal Geographical Society, an honor which he has justified more than most. Prof. Smith was then teaching in the Chengtu Government University.

Meanwhile, in 1903, Edgar had penetrated to Choskia, coming across the Kong Keo Pass (alt. 16000ft.) from the Hsiao King (Little Gold) River. Tatsiculu had been opened as a Mission Station in 1897. In the next year Polhill, Upcraft, Souter and Johanson visited Batang. On a later journey, Souter died at Tanpa, in the same hovel as Huc's escort the "Pacifier of Kingdoms." Finally, Messrs. Ogden, Shelton and the Edgars visited and worked in the Batang area.

Many remember the coming of General Pereira in 1920, who with Dr. Gordon Thompson went into Tibet, having spent some time in Szechwan. This expedition ended tragically, but heroically, in the death of Pereira on the high plateau lands of Kanze. The General's visits resulted in the election of Capt. A. J. Brace to the Royal Geographic Society; the latter became one of the charter members of this society and has been for many years an energetic student of the Border and of Chinese philosophy and literature.

Sörensen, of the C.I.M., working quietly but very effectively at Tatsienlu, became a leading authority on Tibetan language and customs. When Dr. Lauffer of the Field Museum made his studies in E. Tibet in 1910, Mr. Sorensen accompanied him as far as Chiamdo in the Mekong River Valley. This centre was further visited by Ogden, and Muir in 1910, and others later.

In 1911 a daring journey was made by Clements and Cunningham to Derge and down the head waters of the Yangtze. That same year the Edgars followed the Mekong, via Weihsi, to Haiphong. Thus were the southern corridors of E. Tibet traversed and added to geographical knowledge.

### WEST CHINA UNION UNIVERSITY.

Established by four cooperating American and British Missions in 1910, the University has grown to significant proportions and its physical plant in the South Suburb of Chengtu has excited the admiring comment of visitors. Its phenomenal rise has drawn more and more the attention of the educational world and attracted visitors from Europe and America.

Among these have been Prof. Hubbard of Oberlin College, U.S.A., who with Mr. Edgar's assistance studied the Geology of the Ming River Valley between Chengtu and Song Pan, in 1919. Another geologist, Dr. Arnold Heim, in 1930, in company with Mr. Edgar, studied the region west of Tatsienlu, and has published

an attractive volume in German, well illustrated.

Meanwhile Western museums and anthropological research institutions were becoming increasingly interested in Eastern Tibet, Kham, as an unstudied and fairly accessible field, as far as it lay under Chinese suzerainty. Central Tibet has, of course, been quite impossible of travel for many years; but the recent demise of the Grand Lama may mean a new rapprochement between China and Tibet and open up closed routes of communication. The numerous and enormous monasteries of Tibet probably still constitute "the richest store-house of Chinese art objects." These were presented by Emperors of the later dynasties.

### THE MUSEUM.

The Union University has been the recipient of the Contents of many individual and expeditionary collections, and its Museum, in charge of Dr. David C. Graham, as Curator, is becoming one of the University's attractions to Chinese and foreign visitors. Graham, by his numerous collections and publications in connection with the Smithsonian and other institutions has obtained many exchange collections from them for the Museum. been most active in bird and animal collections, made on eight summer expeditions, two beyond Tatsienlu, one to Song Pan, to Muping to Lifan and Tsagulao, to Ningvuenfu, to Washan, and to the Chwan Miao of Yünnan. His studies of "Ancient Caves of Szechuan", and of "Religions of Szechuan Province" have been published by the Smithsonian Institution and the National Museum at Washington, and his numerous articles include "The Miao people", (Journal of Religion, of the University of Chicago); several articles in the Journal of this Society; an article on "The Lolos' in the American Anthropologist; translations of seven Lolo Sacred Books (Chinese Recorder) and several articles on Chinese and Tibetan Religions in same Journal. As Secretary of this Society Dr. Graham is actively engaged in stimulating research, especially in Archeology. His recent excavations and findings at Hanchow will appear in this Journal, current number, and are of notable historic value.

Other valuable studies and contributions are those of Prof. D. S. Dye on the irrigation system of the Chengtu plain, on archeology, and on Chinese lattice.

The agricultural resources of West China have been the object of many years of work by Prof. F. Dickinson, also of the West China Union University. These are bearing fruit in fine fruit orchards, improved grains, a growing dairy industry with imported

Holstein cross-breeding and best of all, creation of Chinese leadership in the promotion of better farm life.

While this Society was made possible by the previous institution of the West China Union University, so near the Tibetan Border, and has greatly profited by its facilities, yet it remains for us to make fuller use of the scientific assistance it offers through the Harvard-Yenching Foundation. It has been suggested that our Journal become a University publication, but in my opinion, an independent but correlated activity is more likely to stimulate a wide interest in Border Research than it would as a purely university function and organ. We want to encourage the amateur enthusiast. It is he who has made the great beginnings in science. Urged on by the divine elan for discovery, keen minds like those of Faraday, Maxwell and Henry (the centenary of whose achievements we recently celebrated and who were men of deep religious instinct as well as profound scientific insight), discovered new ways of enriching life by utilizing natural energies. The immortal missionary-explorer, Livingstone, was a prince of amateurs; so devoted that he could not stop, even to receive honors from the Queen. "No, no," he said to Stanley, when urged to go home, to be knighted, as you say by the Queen, welcomed by a thousand admirers, yes-but impossible. It must not, can not, will not I must finish my task." Such devotion is, however, not so rare as the world thinks.

It is fitting in a history of this kind also to pay reverent and grateful remembrance to men like Adam Grainger, who rested not till he made his "Western Mandarin" monograph available for all who have come later, thus opening a great window into the life of a vast people out here within view of the serrated snow line of the Tibetan border; and to Omar L. Kilborn, who left as one of his monuments the book of "Chinese Lessons" that have assisted so many of us in the psychological exploration as well as the practical management of life in these border provinces.

### Dr. J. E. Rock's Expeditions Into the West China Border of Tibet.

"In addition to his collections, and knowledge of plant life in West China, Dr. Rock has well-rounded interests and a balanced view-point of that part of Tibet in which he spent three years from 1925 through 1927." (N. C. Herald.) It was during that period and during the time of his connection with the National Geographic Society of America, for which he did extensive work, that Dr. Rock made a study of the literature and religion of the Nashi tribes . . . . . gathering material regarding their religion. The ancient manuscripts possessed by this group, already known and partly investigated by Dr. D. C. Graham, are of intriguing interest. "Describing them as of particular concern to historians, Dr. Rock's researches aim to prove that their manuscripts are

authentically pre-Buddhistic, and preserve the Shamanism of the ancient Bon religion in its original version. His four-volume treatise on his findings will be printed by Kegan and Paul of Lon-

don, the first book to appear this autumn." (Ibid.)

"The first book will deal with the history of the Nashi tribe gleaned both from their own and Chinese sources, and dating from the T'ang dynasty. The geography of the ancient Nashi kingdom and biographies of Nashi rulers will also be included. The second and third books will review the Bon religion and religious ceremonies, giving a complete description of the rites and the reason for them, while the third will deal entirely with the pictographs and syllabic writing developed by the tribe. The set will contribute much to the extant information on Central Asiatic migrations.

"Dr. Rock is also author of a forthcoming book on the "Plant Geography of China and Southwestern Mongolia"; and is to return for his latest project into the "grasslands," to obtain grasses for

the arid lands of the American West." (Ibid.)

FORMATION OF THE WEST CHINA BORDER RESEARCH SOCIETY.
EXPEDITIONS BY MEMBERS OF THE SOCIETY.

The first organized expedition went into the Five Colonies Territory in 1920. The members were J. H. Edgar, W. R. Morse, G. R. Helde, George Naumann, and Earl Dome. They entered the mountains at Kuan Hsien, up the Ming River canyon to Weikiu and west to Tsagulao. Thence over the dizzy Vermilion Bridge—the Hong Ch'iao,—a 16,000 feet pass,-down the Fupien valley to Mowkong, thence east over the magnificent pass of the Balang Shan, and the lower but tendon testing Ox Head Pass and out again at Kuanhsien.

This served as a trial trip that led to another expedition in 1922, with the same personnel except that Prof. Neumann did not go. In his place went Dryden Phelps and your speaker, who undertook to be the botanist of the party with the assistance of Samuel T. Lu, a medical student. Dr. Morse was equipped for anthropological measurements; G. Helde was the geographer, and E. Dome the archeologist. This eight week journey via Yachow through the T'ong River valley to Wasikeo-thence west to Tatsienlu: thence north across the heartbreaking Tapao Pass of the Zhara complex of snow-capped mountain giants leading again into the upper T'ong River Valley at Romi Chrango, (now named Tanpa Hsien, under the reorganized government system). Thence up the T'ong River, which was left at Tsonghwa, then east ward up to the Elysian fields of the wonderful Kong Keo Er Pass, looking westward from which, at an altitude of 16,000 feet, we saw the marvellons panorama of endless waves of ever higher ranges on into Thibet. Again J. Huston Edgar was the inspiring and indefatigable guide, his ready use of the dialects opening the way into suspicious neighborhoods. Thence to Mowkong and eastward over the Balang Shan to Kuan hsien. (See Helde's "Four Passes" in

The reports from this trip fired the imaginations of others and in 1922 the members of these expeditions and a few others met and organized this Society, the purpose of which was "the study of the country, peoples, customs and environment of West China, especially as they affect the non-Chinese, promoting study... by the loans of equipment, meetings, lectures, papers, the publication of a journal..." Dr. Morse was elected the first president, and J. H. Edgar the first Honorary Member. The first Journal appeared in 1923 and contained the results of the 1922 expedition and also T. Edgar Plewman's account of his journey into the Heofan country.

Meanwhile Thomas Torrance and T. E. Plewman had been, since 1918, making visits into the Ch'iang and Heofan states. A. J. Brace also began to make regular summer journeys to

Teagulao, in 1920.

After the misadventure of the Polhills, the first to reach Sungpan (1897) were J. Neave and T. Sorensen, who studied Tibetan there. Neave later made numerous notes on the Chiang people, which were, unfortunately, not published. After Sorensen, Moyes was associated with Mr. Neave. (See article by the latter in this issue)

Mr. T. Edgar Plewman, of the Canadian Mission Press, made his first report of a trip to the Heofan district in 1922 (See Journal Vol. 1.) in company with Messrs. Pen and Mao. They penetrated to Somo. Plewman is still the only foreigner to have gone over the Heofan or Ipikeo Pass. In 1929 he again went into the Heshui valley.

### VALUABLE CONTRIBUTIONS BY THE REV. T. TORRANCE.

For fourteen years Mr. Torrance has made numerous visits to the region occupied by the Ch'iang People, north and west of Kuanhsien, in the Ming River water-shed. His published articles and monographs on the Ch'iang have been those of a keen pioneer, earnest researcher, and are therefore of permanent interest and value. He has also made exceedingly valuable contributions to the University Museum of porcelains and ancient coins.

### PHYSICAL ANTHROPOLOGY.

Dr. Morse, our first and several times President, has with consistent enthusiasm, organized and carried through seven expeditions and is going on the eighth this season to the Miao people in Kweichow and Yunnan, to continue the anthropological measurements begun twelve years ago. This season will bring his journeys to a total of over 5,000 miles, and covering the larger part of the territories still occupied by aboriginal peoples. In addition to the two expeditions already described, the following routes were covered

The "Old Opium Smugglers' Trail". This proved, in 1921 to be a hazardous and exciting struggle across the great mountain

west of Beh Lu Ting, over the Ta Liang Tze to Weichow, Lifan, Kuan Luan Chai, and beyond. Messrs. R. R. Service, Richard Service, and George Helde shared the difficulties and dangers and won through.

The fourth was in 1926 when in company with Dr. Paul Stevenson of Peking, and Prof. D. S. Dye, the Cheto Pass beyond Tatsienlu was crossed and observations made of the 'Minya Gonka', at that time thought seriously to rival Everest in height. Dr. Stevenson published a monograph on his observations of native tribes.

In 1929 a visit was made to the Ch'iang people around Weichow and Lifan for further anthropological studies. Dr. R. Gordon Agnew was a member of the party, to make studies of dental and dietary conditions among these interesting people. The third member of the party was Rev Thos. Torrance, veteran researcher in this area.

The next journey of Dr. Morse was into the so-called Lolo Country, of the Nosu people, in 1932, with the assistance of a young educated Nosu recently returned from a Chinese University. In the party, in addition were Messrs J. P. Maxwell, editor of the Chinese Medical Journal; E. R. Cunningham, ophthalmologist; H. J. Mullett, interested in Dental research; L. G. Kilborn, making metabolic studies: F. Dickinson, keen promoter of bigger and better things in agriculture.

The Ch'iang people were again visited by Morse and Agnew in 1933, as far as Song Pan on the North. A part of this journey was in company with Torrance and Graham, the latter a veteran collector and credited with quite a number of new birds and small animals.

It has become quite the fashion for annual parties to Tatsienlu and beyond, which have the advantage of the incomparable guidance of Mr. J. Huston Edgar, and the hospitality of Mrs. Edgar and of the Rev. and Mrs. Robert Cunningham, of the Tatsienlu Mission station. Mr. Cunningham has through the years been quietly making botanical collections of the alpine flora about Tatsienlu as contributions to the famous botanical department of the University in his native Edinboro. Under the pseudonym of "Tibetan" he has also long contributed weekly articles to the North China Herald (Shanghai) on events and conditions in the West China Border Marches centering in Tatsienlu, or Kang Ting, as it is now named.

### THE "MINYA GONGKA."

First accurately measured by Count Bela Szechenyi this beautiful and awe-inspiring snow peak, was "described by Mrs. Pruen in 1889, giving the altitude approximately correct". We were favored with a sketch (of the peak J. H. Edgar in the first volume of our Journal, in 1923. Since then it has been visited

often and finally climbed by a party of young graduates of Harvard University, in 1931, one of the party, Emmons, falling a victim to crippling frostbite, as the party was quite unequipped for such a major mountain climbing feat. Splendid photographs were obtained by Dr. Jos. Rock for the National Geographic Magazine; and by Victoria Russell (Mrs R.A.) Peterson who made the journey alone on yak-back in 1932 from Tatsienlu. At the same time Dr. and Mrs. J. E. Lenox visited the neighborhood of the Gonka. Previously Messrs. Morse, Stevenson and Dye had attempted measurements; and later L. G. Kilborn, H. J. Mullett R. L. and Mrs. Crook, and Misses Streeter and Thexton also made the journey, as far as Yin Kuan-chai, followed in 1932 by Misses Steele Wellwood and Argetsinger.

The summer of 1934 promises to be a record season, as a number of expeditions are heading this way. The Field Museum is again sending a party headed by Dolan to get animals and birds in Eastern Tibet. Another party headed by Dean Sage is in the mountain north of Chengtu. Mr. F. Tangier Smith is collecting live birds and animals for the Philadelphia museum. Dr. Harry Smith, Curator of the Herbarium of the Royal Swedish University at Upsalsa, is collecting plants around Tatsienlu.

### THE "GOITER BELT."

Observation of the enormous incidence of goitre (80%?) among the aborigines of the borderland back of the "Rain Screen" ranges were first reported by Dr. Parry and Mr. Edgar in 1964, when they visited the Great Gold River Valley to open mission work.

In 1932 S. H. Liljestrand and Oscar Liljestrand, accompanying J. H. Edgar and J. R. Sinton, studied the environmental and geological factors of this goitre region north and east of Tanpa Hsien in what was the old Five Colonies of the Emperor Ch'ien Long's conquest, (See article and maps, this issue). A botanical collection was also made, specializing in orchids and aconites. An apparently new species of climbing aconite and an insect catching plant were found. Observations were made on the snow peaks of the Balang complex, suggesting that they are the "Three Sisters" dear to Behludinites and supplementing bearings taken by George Helde on some unnamed snow peaks, (Journal, Vol. 1, and also see map in this vol., article on goitre).

# II. The Prerequisite: the "Scientific Mind".

"It is often said that this is an age of science. Perhaps it is, for a few scientists: but the habit of scientific thought has scarcely touched the vast majority of us... It is perhaps not too much to say that a large proportion of our present-day ills and troubles is directly traceable to false, prejudiced, and generally unscientific thinking."

"Even the scientists", says Dr. Novak, "are not beyond crit-

icism, for much time, effort and money have undoubtedly been wasted in studies which could not, by the farthest stretch of the imagination, be considered to be of the slightest scientific, much less "practical" value . . . a brand of scientific investigation to which the Germans have applied the derisive designation of "Scheinwissenschaft".

The "scientific mind" may be defined in terms of habits of thinking, and of these habits six may be considered to be fundamental.

- (1) Habit of accuracy in all operations, including calculation, observation and report. A very desirable habit in any case.
- (2) Habit of intellectual honesty.
- (3) Habit of open-mindedness.
- (4) Habit of suspended judgment. Willingness to consider new facts.
- (5) Habit of looking for true cause and effect relationships.
- (6) Habit of criticism, including self-criticism.

Binet regarded the power of self-criticism as one of the three fundamental attributes of intelligence.

### HI. THE REWARD

In closing this historical account, let us not forget to render our homage and appreciation to those who carried on at home while husbands and sons were negotiating high passes and treacherous valleys in the pursuit of these many and varied studies: and while we toast the wives, we would remember too those whose lot it is to stand by in hospitals, schools and stations, for they also are lighting the way to better days of understanding, cooperation and brotherhood.

And while we continue to search let us heed the words of J. Arthur Thomson, who wrote "There are three voices of Nature. She joins hands with us and says, Struggle, Endeavor. She comes close to us, we can hear her heart beating,—she says Wonder, Enjoy, Revere. She whispers secrets to us: we cannot always catch her words, she says SEARCH, INQUIRE. These...are the three voices of Nature, appealing to Hand, and Heart and Head."

And, Friends, there are rewards. A long time ago Marcus Aurelius wrote: "Nothing is so productive of elevation of mind as to be able to examine methodically and truly every object which is presented to thee in life." Sir Wm. Mather adds: "The patient investigation and accurate methods required to obtain desired results in the school of experimental and technical science cannot fail to impress, refine and ennoble the characters of those who work in this direction.

### **WEST CHINA TRAVELLERS\***

#### A. J. BRACE

Addressing this Society a few years ago, I reported having unearthed a description of research as, "The first one who uses the material is the originator, the second is a plagiarist, the third takes from the common stock, while the fourth does research work;" and now another facetious individual remarks that, "Researchers are those ubiquitous highbrows who continually search for things that were never lost". Nevertheless let us take our high stand with the president of the Royal Geographical Society, who, at the recent annual meeting quoted Browning:—

"Let things be—not seem;
I counsel rather—do, and nowise dream.

Earth's young significance is all to learn;
The dead Greek lore lies buried in the urn
Where who seeks fire finds ashes."

"Earth's young significance" became very suggestive to us here, when about ten years ago Prof. Hubbard, of Oberlin University, discoursed to us on our "young valleys, and young mountain ranges," which he said were at least forty to fifty million years of age.

At the meeting above referred to, Lord Bridgman of the Admiralty, as guest of honor, referred to "New knowledge in Geography" constantly coming to the front, and quoted the famous Canadian Arctic explorer, Dr. Stefansson, who broadcasting recently about the Arctic highway said, "When young he had been taught that the North Pole was the coldest place north of the Equator; that vegetation there consisted solely of mosses and lichens, and that the Eskimos lived in houses made of snow-bricks". Then he added what he now knew about the North Pole, and was obliged to say many things taught him in youth were apparently wrong. A father impressed with this told it to his son who incorporated the new knowledge in his next school essay much to the annoyance of his conservative schoolmaster. The boy stoutly maintained his position, but perhaps lacked in respectful dignity and was soundly cancel for his trouble. The father took the master to court charged with unjustifiable punishment. It was remarked, as Dr. Johnson once said, what boys lost at one end they usually gained at the other.

<sup>\*</sup>This article originally formed part of a lecture delivered to the Society on October 21, 1933; but is placed here on account of the way in which it is related to the presidential address of Dr. Liljestrand.

In this amazingly rich Borderland about us we have the "Young Earth", and we have discovered much "New Knowledge", but we have only touched the fringes of these vast anthropological and archaeological deposits. These riches will not come to light accidentally or without effort. They will come only by dint of patient, scholary research, combined with arduous toil and devoted personal sacrifice.

Dr. Briffault, noted British anthropologist, gives our Society a significant lead in our quest when he defines Social Anthropology as limited to that portion of man's cultural history not represented by written annals. These lower or more primitive societies which have no written history are precisely those which afford an opportunity for investigating the origin of subsequent social phenomena. Hence the significance of Social Anthropology, because to understand social phenomena implies an understanding of their origins. To understand current history is impossible without an adequate knowledge of past history; in the same manner the whole of recorded history becomes fully intelligible only in the light of anthropological facts and their interpretation."

Professor Boas of the Anthropological Department of Columbia University gives a further lead of vast import to educationalists, when he says, "The results of anthropological observation all go to confirm the suspicion long held by anthropologists that much of what we ascribe to human nature is no more than a reaction to the restraints put upon us by our civilization". The conclusion forced upon us that, so far as it has any bearing upon social life, man's behavior is almost the effect of culture, and not of nature, is one of the most far-reaching developments of modern thought.

Now for a definition of our area we cannot do better than use "Chwan Bien" (川邊), the political term denoting the "Szechwan Western Border'. Our honorary president, Edgar of the Tibetan Marches, has, I think, the best description of this area. In an article published in the Chinese Recorder, under the caption, "What Type of Man is Necessary for Tibetan Work", J. H. Edgar, says. "Chuan-Bien, a region of about 126,000 square miles consists of a maze of deep corrosions occupied by the Salwen, Mekong and Kinsha Rivers, with the affluents of the latter between Lats. 26 to 34, and Longs. 98 to 103. In these valleys, deep, and and usually, characterized by hot stagnant air, we find the agricultural Tibetans whose groupings represent populations of considerable importance. But thousands of feet above the river valleys on older mountain systems and peneplains is the Tibet of the text-books—a land of rounded hills, open valleys, and far extending plateaux—a veritable paradise for marmots, yaks and grass-eating animals. In both regions strictly speaking, our Tibet has no towns, but great lamaseries with populations of from 200 to 3,000 lamas answer the purpose in many ways, and must in the long run complicate mission work. Chuan-Bien as a whole may be described as a region

somewhat sparsely but very evenly populated by either house or tent-dwellers. The climate of this region is surprisingly moderate. It is affected in the summer by the monsoon rains up to 16,000 feet. The snow line cannot be much below 18,000 feet; forests creep up to 14,000 or 15,000; and grass and flowers cover the zones 2000 and 2000 feet higher. During the winter of 1930-31 we were fifty days between 13,000 and 17,600 feet, but no snow fell during this period. Yaks were grazing above 16,000 feet; many of the passes were free from snow, and only occasionally was difficulty with drifts experienced. Night temperatures ranged from 4° to 20° F., but the days were warm and pleasant. We slept in tents at 15,000 without inconvenience."

The unrelenting lure of this mystic land has drawn like a magnet illustrious world travellers--some of the names to conjure with are General Pereira, Major Bailey, F. Kingdon Ward, Dr. Joseph Rock, Roosevelt Brothers, Dr. Arnold Heim and party, Floyd Tangier Smith, Prof. H. Smith of Upsala, Gilbert Bowles, many others, last but not least, the Hsi-Kang Expedition that finally conquered the Minya Kong-Ka (資屬) peak and fixed its much contested altitude at 24,000 feet. We must pay a word of respect and congratulation from this Society for the plucky climb of these young American climbers. The top was reached October 28, 1932, by Terrence Moore and Bursall, of Harvard University Alpine Club, with Emmons and Jack Young in support. Tibetan porters refused to go above 14,000 because of superstitious fears. Camps were established at B-17,000, C-19,000, D-20,000.  $\mathrm{E}\!-\!21,\!5000$ . On October 16, Emmons and Moore reconnoitred as high as 22,500. Then Emmons cut his hand and froze his feet before the final assault. Jack Young, American born Chinese, did yeoman service organizing the base camp, getting supplies through to all the camps, handling the porters, and replenishing the commissariat with bear, deer and other game that fell to his rifle. Emmons was in the capable hands of Dr. Crooks for many months, and once wrote, "Am feeling a bit downcast today as the Doctor, says all the toes must come off both feet, but can save enough so that I can walk. Well, it's all in the game, and anyway I won't have to cut my toe-nails any more".

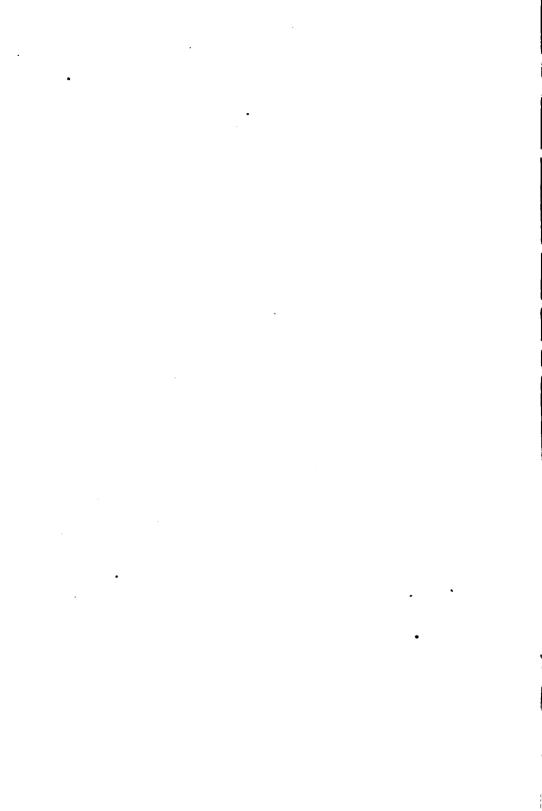
We are glad to know that our own Mr. Edgar recorded his impressions of this great mountain and gave us a sketch of the same in our first Journal, 1922-23.

The first Englishman to reach Lhasa from the Chinese Border was Gen. George Pereira, and the story is well told from diaries of the late lamented General, reproduced in a very readable book by Sir Francis Younghusband, who commanded the British Mission to Lhasa 1904, "Peking to Lhasa"—Journeys made by the late Brig. General G. Pereira". Pereira started his expedition from Chengtu, December 15, 1921. While here the General lived at the British Consulate and made himself very popular with foreigner

and Chinese by his affable disposition and modest manner. His arduous trips, made for the most part alone, and done so thoroughly with daily records accurately kept, and excellent mapping done on all his journeys, constitute a well nigh perfect ideal for all budding explorers. Probably the secret of his being able to reach Lhasa singlehanded is the fact that he punctiliously avoided show or arrogance on his own part or that of his servants, and won the confidence of all whom he met by his absolutely fair dealings and quiet even temperament. On the journey he met both Dr. McGovern and Madame Neil, both of whom later reached Lhasa in disguise, the former from the Indian border, and the latter from the Chinese border.

While we remember celebrities that have made history in this Border Land, we should not forget to mention an honorable roll of missionary travellers who have added not a little to the sum total of valuable information and inspiration for the task. Let us remember with pride and affection such men as Sorenson, Edgar, Torrance, Ferguson, Neave, Hartwell, Openshaw, Manly, Hutson, Cunningham, Andrews, Muir and others.

Then in our own youthful Society of scarcely twelve years of experience we already have an honor roll of seasoned explorers such as Morse, Helde, Dye, Plewman, Liljestrand, Crook, Cook, Graham, S. C. Yang, etc. In later years younger men have made history as Phelps, Kilborn, Agnew, Mullett, Crook, Dickinson, Ed. Cunningham, Lenox, Duncan and others. Not to be outdone by mere men, the ladies have an enviable record of travel, with such names as Mesdames Muir, Dye, Peterson, Lenox, Misses Wellwood, Cora Kilborn, Streeter, Thexton, Argetsinger and others. This year the Browns and Hibbards made an arduous trip, enduring the dangers of earthquake and consequent rock slides, great danger, when Mrs. Hibbard and Mrs. Brown with their respective daughters Doris and Muriel, comported themselves on a dangerous road like seasoned veterans. Opening our membership to High School students has constituted a call to Oscar Liljestrand, Brockman Brace and William Joiliffe. We trust more will respond to the call of the wild.



# MISSIONARY AND OTHER EXPERIENCES ON THE INDIAN AND TIBETAN—CHINESE BORDERS.

#### JAMES NEAVE

"We will go up into the hills—the high hills—up to the sound of snow water and the sound of the trees—for a little while".—The Lama, in "Kim"—Kipling.

I made my first acquaintance with the Indo-Tibetan frontier in the Spring of the year 1894, when, as a member of the Tibetan Pioneer Mission, under the leadership of the late Miss Annie Royal Taylor—an attempt was made to establish a Mission station across the Sikhim-Tibetan border.

After a week in Calcutta to allow of us recovering our land legs, we were hurried off to the frontier in order to escape the April monsoon. It took us exactly twenty-four consecutive hours' travel to make the three hundred miles by rail from Calcutta to the hill station of Darjeeling. We crossed the Ganges during the night by train ferry, and at Siliguri, which is the terminus of the Northern Bengal State Railway, and is distant but 327 English miles from Lhassa, the Tibetan capital, we changed on to the narrow gauge of the Darjeeling Hill Railway, a great triumph of engineering skill, for the six-hour climb from the foothills to our destination, breaking our journey at Kurseong (4860 ft.) for lunch.

During the climb of "one thousand ft. per seven miles" we left behind us the Bengal Duars, a fertile belt of country, which is a veritable tea garden, and, mounting steadily, we presently drew level with, and anon passed through, the great belt of clouds, and looked back into valleys filled with huge billowy cloud masses, which took on an infinite variety of colour under the sun's rays. From then on our progress seemed to be by means of a series of loops and curves until the village of Ghoom (7401 ft.) was reached. We learned that this is the point at which sight-seers leave the train for the purpose of viewing that peerless giant amongst mountain peaks, Everest (29,141 ft.) the conquering of which a flying expedition has just accomplished, and a ground expedition is attempting at the present moment, and which, seen from the top of Tiger Hill (8514 ft.), is said to be but forty miles

distant as the crow flies, although so often clothed in mist that the saying was common even in those days that one "viewed the mist and missed the view!" A few miles farther on and the terminus of the hill railway and our meantime goal, Darjeeling, was reached at last.

Darjeeling, which in Tibetan means 'hill of the thunderbolt,' is 7300 ft. above sea level. It is situated in the tongue of land called Sikhim, or Farther India, which is bounded on the west by what has been called the 'veiled land' of Nepaul, on the east by Bhutan, on the north by Tibet, and on the south by India proper. From Darjeeling one's whole horizon from West to East is crowded with magnificent snow peaks, affording a sight not to be met with anywhere else on earth.

Here the Earth's surface is piled up ridge upon ridge, terrace upon terrace, fold upon fold, till it would seem to challenge Heaven itself. Indeed, in "accordance with the scientific opinion held by many authorities, the Himalayas are still being elevated by the contraction of the Earth's surface" (a). It is a land of "magnificent forests and rivers--of everlasting snows and glaciers--of stupendous mountains and valleys" (b), and beyond them all lie "the limestone ranges" of the still mysterious and largely unap-

proachable land of Tibet.

Truly, these Himalayan ranges ("Himalaya," in Sanscrit, means, we are fold, "abode of the snow") afford (to quote one authority) "the supreme illustration of the sublimity and incomparable granduour of mountain scenery. One has only to remember that the mean elevation is some 18,000 ft.; that what is called 'the Everest range stretches for some 1200 miles,' and embraces at least forty heights exceeding 24,000 ft. (later research, indeed, gives this as seventy peaks of over 25,000 ft.) to grant the truth of the assertion that the great mountain solitudes of the Himalayas... cannot fail to produce impressions of wonder and awe of such intensity as can be conjured up by no other range in any quarter of the globe" (c).

To quote from a recent writer: "Even to us of this supersophisticated age, there is a feeling of a spiritual presence, a sense of unattainable glory, an essence of the infinite, as we gaze in unvoiced rapture into the endless and spaceless depths of the Himalayan scenery. Perhaps only in the words of the spiritually

inspired bard of less mythological days;

"In His hand are the deep places of the Earth;

The strength of the hills is His also," can it be finitely expressed.

<sup>(</sup>a) "Sikhim and Bhutan," P. 90.

<sup>(</sup>b) Ibid: Preface, P. VII.

<sup>(</sup>c) Article in Everyman's Encyclopaedia, vol. 7, P. 360.

This feeling of being in touch with the Infinite is common to all the races and tribes dwelling on "the eaves of the Roof of the World" (a). In his "Kamet Unconquered," F. S. Smythe

quotes the words of a Hindu sage, as follows: -

'He who thinks of Himachal (the Himalayan snows), though he should not behold him, is greater than he who performs all worship at Kashi (Benares). And he who thinks on Himachal shall have pardon for all sins; and all things that die on Himachal, and all things that, in dying, think of his snows, are freed from pain. In a thousand ages of the gods I could not tell thee of the glories of Himachal where Siva lived, and where the Ganges falls from the foot of Vishnu, like the slender thread of a lotus flower." Smythe adds that "50,000 pilgrims annually pay their respects to the holy and eternal snows whence the Ganges flows from the feet of the gods'' (b).

As may be surmised, the rainfall in these regions is prodigious. I quote from John Claude White, who was Indian Government administrator in this District for twenty-one years, and who, in his book, "Sik him and Bhutan", says: "Sikhim, owing to its proximity to Kangchenjunga (28,146 ft.), has a heavy annual rainfall, about 50 in., even in the dry upper valleys of Lachung and Lachen, increasing to about 140 inches in other districts' (c).

I may say here that Mr. Moyes and myself later visited both of the above mentioned passes, viz., Lachen ("great pass") and Lachung ("little pass"), and these eventually became the head-

quarters of two Scandinavian lady missionaries.

In the wedge called Sikhim, with its capital at Gantok, which I visited on a later occasion, and the scenery of which is simply magnificent, lying as it does within the watershed of the River Teesta, which practically forms the boundary between India and Sikhim, there is a great admixture of races. "Their variety" may be judged by the fact that" on the walls of the little Scotch Mission church in Kalimpong, the verse, John III. 16, is printed in ten different languages" (d).

These include Lepchas, whom Claude White calls the original inhabitants of Sikhim, and certainly "one of the most ancient of tribes"—the Nepaulese—the Bhutias—the Tibetans—the Paharias

-and the British Indians.

Referring to the Lepchas, they struck one as being of a mild and gentle disposition, and we were accordingly surprised to hear them described as demon worshippers. But perhaps Claude White's account of them as "although now professing Buddhists, they

<sup>(</sup>a) North China Daily News, Dec. 23, 1932. (b) "Kamet Unconquered," p. 83 and 26. (c) "Sikhim and Bhutan," p. 3. (d) "On the Threshold of Three Closed Lands",

originally worshipped the spirits of the mountains, rivers, and

forests" (a) is more correct.

The Bhutias ("the term Bhutia" according to Dr. J. A. Graham, C.I.E., in his book, "On the Threshold of Three Closed Lands," "is commonly applied to cover the whole Bhot (Bod) race, whether they come from Tibet, or Bhutan, or are located in Sikhim") "are fine, tall, well-developed men." The dress of the women, who are "comely, clean, and well dressed," consists of "a long piece of Bhutanese cloth woven in coloured stripes, draped round the figure, and fastened on the shoulders and confined at the waist by a band of brighter Bhutanese cloth. . . . Their hair is generally worn in two long plaits" (b).

My first introduction to the Tibetans—at close range at anyrate—was when I was handed over to one of the renegade priestly class of whom Miss Taylor, we found, had engaged several as language teachers, by name Chabri-la! (meaning "door-keeper," or "porter"). These priests belonged to a class who, for some misdemeanour or other, had been expelled from, or had taken French leave of, their monastery in Tibet. They were engaged by our leader because they came from the district of Central Tibet, and spoke the pure Lhassa dialect. Later on we blessed her for her foresight in this respect, as most of the lama class who are worth their salt eventually are graduates of one or other of the three great lamaseries of Lhassa, viz., Sera, meaning "Golden Temple," (which claims to possess the original thunderbolt which is supposed to have fallen from Heaven), Drebung, and Gaden, with monks numbering from 7000 to 10,000 each; and most of the traders of any consequence at least understand that dialect, if they do not by any means always speak it.

Miss Taylor's plan was that we should spend about six months at the language, and then push on to establish a Mission post beyond the frontier. Our early attempts at acquiring the language were distinctly elementary, certainly! You must, please, bear in mind that there were practically no helps to the study of the language—nothing approaching language school—in those days. We simply sat down with a copy of one of the Gospels (a Moravian translation) in Tibetan, our English Bible, and the Tibetan-English Dictionary and Grammar of Dr. H. A. Jaschke, the late Moravian missionary and scholar, which followed the plan of one by Schröter, a missionary in Bengal. But, as the great majority of Tibetanwords have prefixes and affixes and/or superadded or subscribed consonants, and as, in the Lhassa dialect at least, most of these are silent, although they doubtless modify the sound values (on this border most of them are sounded, which makes them almost

(a) Ibid p. 8.

<sup>(</sup>b) "Sikhim & Bhutan." p. 163.

unpronounceable), we floundered about at first rather hopelessly from consonant to consonant, trying to chase up a particular word in the dictionary! We found it more entertaining, as well as useful, to point to articles in the room, and repeat the sounds after our lama teacher as best we could, transcribing them to an A.B.C. book.

During the latter part of our residence in Darjeeling, however, we were materially helped by various text books published by Sarat Chandra Das, C.I.E., and Phontso (g) Wangden, both lecturers in the Bhutia school carried on there under Government auspices. The English 'Times' of January 7, 1904, says of the former that he is 'one of the native explorers to whose patience and observation we owe so much of our small knowledge of these wild regions.'

I think our band were all fairly keen to acquire sufficient knowledge of the language to allow of us pushing on to the frontier as speedily as possible. Our recreations consisted for the most part of walks, but these were generally full of interest. On one occasion we visited a great tea garden, and were shewn the method of picking the leaves (the tiny tips being considered the finest), and of drying them in great copper pans. Modern methods have, however, improved on these, I understand. One day we watched a Russian agent packing away in crates for shipment abroad literally thousands of beautiful, vari-coloured orchid blooms, any one of which might have graced the coat lapel of the late Joseph Chamberlain!

We had other diversions presently, however. Our leader made no secret of the fact that she purposed pushing her Mission across the Indo-Tibetan border. Indeed, that was the raison d'etre of the Tibetan Pioneer Mission! Others—such as the Scandinavian Alliance Mission—might content themselves with evangelising Darjeeling and vicinity, and even occupy the Lachen and Lachung valleys above referred to. Indeed, the S.A.M. eventually established a Mission Press in the village of Ghoom, and the Tibetan New Testament which I now possess was printed by them.

Perhaps, therefore, diplomacy on the part of the powers then in being was responsible for the invitation extended to us as a Mission to be present at the garden party of the Lieutenant-Governor of Bengal, in the beautiful grounds of the Residency, where His Excellency, Sir Charles Alfred Elliot, and his lady, were very gracious to us.

When it was found, however, that our leader was determined to push matters, something in the nature of a public remonstrance was administered, the authorities declaring that, having just finished a war with Tibet (1888-9), they were resolved to put a stop to any movement that might again endanger the peace of the frontier.

When remonstrance proved unavailing, however, other tactics were followed. The District Political Officer called on Miss Taylor, and offered to place the dak, or post, bungalows at her disposal as

rest houses, en route to the frontier. These have a watchman in charge, and are primarily for the use of those on official business, but otherwise at fhe disposal of ordinary travellers, Our leader, however, declined the offer, having made up her mind (I put it charitably) not to involve the Government in any move she might make.

It was this decision of our leader's (not to use the dak bungalows) that led to our having to meet in the open our first experience of a tropical thunderstorm. While some of our party had camped out on the verandahs of one of the dak bungalows, my chum (later, Henry Stumbles, M.D., of Lewisham, England) and I elected to camp out on the grassy sward in front of the bungalow, constructing a quite passable tent by means of alpenstocks and ground sheets. We had no camp beds: we simply spread our blankets on a waterproof sheet laid out on the green. When we retired for the night the sky was a dome of blue. We were awakened somewhere about midnight to find the heavens emptying themselves on to and all around our frail tent! theless, we found ourselves either so tired or so lazy that when we discovered the water was rising all about us we simply took the coverings from over us and stuffed them under us and lay on until morning! Youth can do that and get away with it! I shouldn't try it to-day!

Eventually, we evacuated our quarters at Woodville, Darjeeling, and, following what is known as the Chumbi route, which, 'since the days of Warren Hastings, and doubtless for many hundreds of years before his day, has been the chief gateway through which the trade of Tibet and India has passed to and fro,' (a) after six rather strenuous days' travel, reached the rather tiny village of Gnatong, just under 14,000 ft. in height, in late September of that year (1894).

Arrived there, we were faced with the fact that there was no accommodation for our large party (which, as a matter of fact, had shrunk, by reason of resignations and dismissals, from the original fifteen to nine, plus two children), a circumstance which the District Political Officer had sought to impress upon Miss Taylor. Nevertheless, our leader—clinging to her independence—declared her intention of hunting for a cave or caves in which to quarter us!

Leaving the cave hunters to their interesting ploy, Mr. Moyes and I wandered off over the broad rolling downs and grassy slopes, and presently, so rapt were we in our new surroundings, that we succeeded in losing all sense of direction. I remember well the feeling which came over me on that exalted and isolated spot, and which I have experienced only once besides in the whole course of

my life—and that was on the shores of a lonely loch among the Scottish Highlands—of being all alone—entirely and utterly alone—in the whole wide world!

Although the evening was cloudy there was a good moon, which not only enabled us to find the path (more properly sheep track), but to ascertain the direction in which the village lay, by noticing filaments of wool on a species of short prickly shrub which grew by the side of the path. These had been frayed from the bales of wool borne by mule caravans passing across the border from Tibet to India. Hence, by noting the direction in which these pointed, we were able to assure ourselves that we were on the right path. Our progress was much retarded, however, by the fact that we could only proceed during the intervals when the moon was clear of clouds.

The night was fast closing in, therefore, when we found our way back, and we met two of our party out in search of us. We found that, by the help of the military officer in charge of the post, accommodation had been secured for our party with the Tibetan interpreter attached to the post, and the Nepaulese transpost agent.

I might say that Gnatong has been a British military outpost (the highest in the world, we were informed) since the war of 1888-9, when the Tibetans were defeated there. Speaking of this military outpost reminds me of the day on which our steamer drew up the Hoogley towards Calcutta, when, noticing the great mud flats laid bare by the receding tide, the question was asked as to the cause of these, which drew forth the reply from a returning resident that the Inniskilling Dragoons then in garrison at Gnatong were having their annual bath!

Gnatong is but eleven miles over the Jalap Pass from the frontier, where at Yatong, a trade mart had been opened that very year by J. Claude White above mentioned. Lhassa is but twelve stages distant from there.

I will touch but briefly on our life at Gnatong. Suffice it to say that, our leader's idea being to inure us to the cold and hardship of Tibet (without doubt a very commendable idea in itself), we spent most of our days in pursuit of our studies in a large military bell tent which one of her Darjeeling admirers had presented to Miss Taylor. There we might have a fire! I will not conceal from you how much, under these circumstances, we envied the Yorkshires, who were then in garrison, their "British warms"! We six bachelors, having helped the Tibetan interpreter to build a lean-to to his hut, took up our quarters there, sleeping "head to tail," and, despite instructions to the contrary, built a fireplace, utilising the discarded oil tins from off the post's dump heap for a chimney!

I pass over the next stage in these experiences as briefly as possible. It will be sufficient to say here that there had been a

very considerable degree of dissatisfaction shewn at the Home Base by reason of the way the affairs of the Mission had been handled on the field, and matters had been moving towards a climax. While Miss Taylor was away hunting up our much delayed heavy baggage (I ought to say that she much preferred to keep such matters in her own hands, having without doubt engineered the dismissal of one of the most capable amongst our number because he appeared to usurp too much authority in connection with the passing of our stuff through the Calcutta customs!), the Home mail brought news to the effect that the heads of the Mission there felt that they could no longer support the policy being pursued on the field by our leader, hence they had tendered her their resignations!

It was, of course, a stunning blow to our leader, though she took it very gamely, and our own hopes were sadly dashed! One of our number stayed on with Miss Taylor (he died within a month, of typhoid fever), who subsequently pushed forward to Yatong, where she got over the technicality of being a non-trader by opening a combined preaching hall and store, wherein she disposed of, to the Tibetans, at cut prices, the Mission wardrobe which was to have protected our limbs from the keen weather of those altitudes!

I trust I may be allowed to add a word here to the effect that, while we may have questioned Miss Taylor's methods of Mission organisation and administration, there was never in any of our minds any doubt as to her sincerity or her courage. In this connection, Mr. David Macdonald, author of the recently published book, "Twenty Years in Tibet," for fifteen of which he was British Trade Agent on the frontier, and whom with his brother John, I had the pleasure of meeting in Darjeeling in 1894, is reported as saying of Miss Taylor that she "was the only Christian missionary who within the past century conducted missionary work within the boundaries of Tibet, but who, by so doing, proved that it could be done."

We retired on Kalimpong, a pleaseantly situated market town four stages back, at a height above sea level of 4400 ft. Dr. Graham calls it "the trading centre between Tibet and Bengal." There—after being hospitably entertained by our friends of the Scots Mission, who have a flourishing work there, particularly Dr. (& Mrs.) Graham, whose labours on behalf of Eurasians and orphans have since been honoured by the conferment of the Order of Companion of the Indian Empire, and who did their best to dissuade us from so doing—we rented a shop in the native bazaar, fitting it up with bunks for sleeping quarters, and making most of the necessary furniture. One of our number took on the job of chef, and we employed only one native servant. For convenience sake, as well as for reasons of economy, we donned Tibetan dress.

There we gave ourselves with assiduity to the renewed study of the language, and, with every encouragement from our Scots

friends, conducted open air services for Tibetans in the bazaar. To relieve the occasional monotony of life in our rather cramped quarters, we indulged once and again in what might by a considerable stretch of imagination be called a musical evening! We could muster two guitars and two concertinas amongst the party, and the others of us contributed our quota by means of tin plates, which we found made very effective tambourines! And with this equipment we sallied forth into the adjacent jungle to the great relief of our cooped up feelings, and doubtless to the no little surprise, and possibly dismay, of the denizens thereof!

On another occasion, when the heavens had literally rained torrentially for two weeks on end, with no sign of abatement, we got desperate at the want of outdoor exercise which this had entailed, and donned waterproofs and stout walking boots, which a benevelent Govornment had issued to its mountain artillery in that part of the world, and which the artillerymen were nothing loth to exchange for good rupees, and sallied forth into this more than Scotch mist, to the great relief of our much cramped limbs.

On the afternoon of New Year's Eve of that year a brother Scot and myself determined to make the journey from Kalimpong to Darjeeling in order to "first-fit" two of our comrades who shortly before had taken up their residence in the latter resort. The journey involved a descent of nearly 5000 ft. to the bed of the River Teesta, and a climb of nearly 7000 up the opposite slope, with the result that we did not make the progress we anticipated, and it was only by the aid of the blazed trees that we finally brought up, about eleven p.m. at the bungalow of the Scots tea planter, Mr. Lister, who, with some neighbouring planters, was celebrating the approach of the New Year in true convivial fashion! They gave us a royal welcome, just off the road as we were! host informed us that we had done rather a risky thing in coming through the woods at that late hour, as there were leopards on the prowl. He added that on two occasions recently a leopard had seized a dog from off his veranda, although the second time a shot had brought him down. For this reason he and his friends tried to dissuade us from leaving before the morning. However, feeling like giants refreshed as a result of the good cheer and pleasant company, and, moreover, being assured that the remainder of the way was mostly cleared jungle, we determined to push on, and eventually reached Darjeeling about four in the morning, relieved to find that we were, as we had hoped, the "first fits" to cross our friends' threshold!

Most of all did we enjoy visiting, in the Spring and Fall, the camps of the Tibetan traders on the adjoining hills. These camps were formed by means of piled-up bales of wool, arranged in a square, and the entrance guarded by a fierce Tibetan mastiff. This wool was bought by a German agent in Kalimpong, and transported by rail to Calcutta for shipment abroad. These traders impressed

10

us most favourably, with their frank, open faces, and hale, hearty manners. They received our literature quite readily, and listened,

for the most part earnestly, to our message.

Having such knowledge of medicine as a two years' course at home provided one with, I was somewhat in demand as "Umji-la' (doctor), although my actual name in Tibetan was "Nyi-ma," meaning "the sun," albeit there was the Scots hospital there, to which the Tibetans, despite my constant urging, refused to go for treatment. Their excuse was that they nearly all died there! I pointed out that they usually waited until in extremis before they went! As a matter of fact, I incline to think that they felt more at home with one who spoke their own tongue!

However that may be, I was able to save the lives of some of these people, for which their gratitude generally took tangible shape. On one occasion I was called upon to extract from the mouth of one Tibetan a tooth which was so large that I was compelled to use both hands, one for each handle of the forceps, in order to effect the extraction. One night I was roused well on to midnight by a summons from the Tibetan eating house on the outskirts of the bazaar. On arrival on the threshold up jumped a Tibetan with a knife in his hand (some of the frequenters of the eating house being of doubtful reputation), but on my turning the light of my lantern on my face, "Umji-la," he exclaimed, and permitted me to pass. I found a young Tibetan of about 17 years, who had been a traba (novitiate) in a monastery in the interior and had run away, seriously ill with kidney trouble. I won't presume to say in the presence of so many professional men what means I used to help him, but I capped it with a sleeping powder, and the next day he was over the crisis.

I mention this because it established a bond between us, and led to many a talk on the Christian religion. The sequel happened a dozen or more years afterwards, when one of Chao Er-Fong's disbanded soldiers from Mongkong, brought me a letter which had been handed to him at Kalimpong, by the Rev. Evan McKenzie, a former colleague of mine in the T.P.M., and which, among other things, informed me that my young Tibetan patient of the eating house had not only become a devoted Christian, but was even then being equipped to preach the Gospel among his own people.

During the last year of our stay at Kalimpong we were fortunate in securing the services as language teacher of a young man of good family, named Ye-shi (meaning "perfect" or "divine Wisdom.") He had developed lung trouble, and for this reason had been advised to try a less rigorous climate than his native Tibet. He was a model of courtesy and thoughtfulness. His language was the pure Lhassa Tibetan, his enunciation was perfect, and it was a treat to listen to him.

He taught us by means of many series of exercises based on the Gouin system, much about his country; its people and their habits; its modes of travel and their dangers; its customs and their significance. One very valuable series dealt with the life of a priest from the time he entered upon his novitiate till he qualified as a lama. Others dealt very fully with marriage, death, and burial; house dedication; uses of prayer flags (or "lung ta": "airy" or "wind horses", as they are called). I count myself fortunate in having this collection complete.

Alas, poor Ye-shi! Tuberculosis claimed him for its victim, and, despite the fact that before he passed on he had acknowledged his interest in Christ as his Saviour, and expressed his wish for a Christian burial, his relatives and countrymen insisted on according him the second most honourable mode of burial amongst the Tibetans, viz., by burning. Unfortunately for their purpose, however, the day was a wet one, and although they poured quantities of paraflin over his poor body, it refused to burn. His relatives grumbled that the Christian missionaries were responsible, and they finally weighted his body and committed it to the water, the third most honourable form of burial.

I might mention one more episode of our life on the Indian frontier. That was the annual "mela" or fair, held at Kalimpong, to which gathered a great congeries of peoples representing all the adjacent lands aforementioned in this lecture. There was in addition a strong delegation of Anglo-Indians, tea planters mostly, with a sprinkling of forest officers, present. The British Raj, also, in the person of the Lieutenant-Governor or his deputy, is generally All sorts of handwork, both useful and ornamental, are on shew or for sale. It is then that the mountain batteries replenish their stock of mules from amongst the droves offered for sale as the result of the handbills, printed in Tibetan, and circulated over the border for months beforehand. A feature of the Fair was what was called "the devil dance," by a certain number of the Tibetans present, in their papier-mache masks of cloth and clay. This dance is really a religious ceremony, and not a caricature, since those taking part represent the animal world in subjection to the all-powerful rule of those who wield the thunderbolt. ding to Jaschke, the thunderbolt was originally "the weapon of Indra, and is now the ritual sceptre of the Northern Bhuddist priests, being their symbol of power and authority, and is held in their hands . . . . during ceremonial prayers, and waved about in the direction of the four points of the compass."

Shortly after the death of Ye-shi it was thought well by those who had assumed the reins of authority in the room of Miss Taylor that we should retire from the Indian frontier, and seek admittance to Tibet proper from the Chinese border. I may say that two or three of our number, myself amongst them, were most reluctant to leave the Indian frontier, as we believed we could see splendid possibilities for work among the Tibetans there. Our protests, however, were over-ruled, and hence, almost two years to a day

from the date of our arrival in India, we left its shores behind us,

travelling by French mail, via Saigon, to Shanghai.

On arrival there we were drafted without loss of time to this beautiful province of Szechuan, and two of us made the long, and in those days adventurous, journey by houseboat from Ichang to Chungking, and thence by small boat to Kinting, to which we were stationed, in July, 1896, with the understanding that, as soon as we possessed a working knowledge of Chinese, we should proceed to one or other of the border points of Tachienlu or Sungpan.

Two rather vivid experiences befell me while in residence at Mr. (now Dr.) Endicott and I were returning from a tract distribution trip, when, on Peh Tah Kai, nearly opposite the Mission property, we saw a man crucified on a door ("ting hohmen-shen si," as the Chinese express it). The poor fellow was evidently in extremis. I cannot recall that we asked what his crime was, but our hearts were filled with pity at the sight. My companion procured a glass of water for him, as he seemed burning up with thirst. It was all that we might do for him. I am thankful to say that was the first and last time I ever looked upon such

a cruel and pitiable spectacle.

The other incident happened during the Chinese fifth moon A Chinese child was missing. The rumour spread like wildfire that the foreigners had abducted the child for fell purposes. In less time almost than it takes to tell the story, Peh Tah Kaithe sole street on which missionaries resided in those days—was a seething, excited, angry mass of people, so densely packed that one might have walked over their heads. Mr. Kuan, a language teacher, and a wise and knowledgeable gentleman, blocked the Mission house gateway with his portly figure, and, making his palm leaf fan work overtime, explained that the crowd was mistaken: the child was not in the compound; moreover, foreigners did not treat little children in the way rumour said they did. Didn't he know? Was not he their teacher, moving in and out among them constantly? While Mr. Kuan in such fashion held the attention of the crowd at the front gate, a messenger was despatched for the District Magistrate by the back entrance. Meanwhile, however, the aspect of the crowd was getting dangerous, and the situation looked critical for all concerned, when the suggestion—I forget whether it emanated from Mr. Ririe or Mr. Kuan—was made that some half-dozen men should represent the crowd and search the place for themselves. After a momentous hesitation the suggestion was adopted, and while these were being shewn round the magistrate arrived, having made his way through the crowded street with difficulty, and who, after a brief inquiry, dealt out summary justice in the shape of a flogging to the poor fellows who had been engaged searching the place!

June of the following year found me, having successfully passed the required examintions in Chinese, en route, on foot, from Kiating to Sungpan, normally a 16-stage journey. That year, 1897, however, was a flood year, and instead of the normal four it took us six days to reach the capital. I delayed here a week to give the roads time to harden somewhat, and renewed my journey. At Kuanhsien I was hospitably entertained by the late Mr. A. Grainger and his good lady, who would have had me prolong my stay, but I was anxious to see what June was like among "the high hills"!

From there on, as many of you now know, the road consists of a series of ascents and descents over winding paths of granite and limestone, through ravine after ravine, dotted here and there with water-mill and tiny hamlet, and anon a cluster of huts termed a village, with a few more pretentious ones (fallen from their one-time high estate), with the solitary exception perhaps of the town of Maocheo.

It was on this journey that one first made acquaintance with, in the vicinity of Weicheo, the towers characteristic of that whole western country. Several theories are now held with respect to the use to which these were put, but the conclusion I formed then I have had no reason to alter since, viz., that they were used, primarily, for purposes of defence. Indeed, as one looked up the slope of the hill on the left arm of the Lifan river, near Weicheo, the Chiang villages appeared to be a series of battlemented strengths or keeps. We gathered that the stock was marooned in the basement, the grain supply stored in the first storey, and the upper storey or storeys occupied by the human inmates. On a visit to one of these we rescued a leather suit of armour from its coating of dust on one of the upper platforms or storeys. Others we found hanging on a near-by monastery wall.

It was on two later occasions, however, viz., to be precise, in the years 1907 and 1911, that we made journeys with the purpose of making more intimate acquaintance with the people called the Chiang-Ming, or Chiang-Ih. On the former occasion Dr. Stewart and Mr. Fergusson were my travelling companions, and by reason of a heavy bout of malaria which incapacitated me, Dr. Stewart and I were camped for two weeks opposite the Chiang villages, and so had ample leisure to gather much interesting information about these people, On the latter occasion, Mr. Elrick Williams (whom some of you here will doubtless remember) and myself were the guests for the better part of a week of a man of consequence among his people, viz., Yang Sheo pi. During our stay there we were fortunate in being introduced to some of their peculiar religious rites which we found intensely interesting. I need not go into particulars here as to the nature of their religion—which is reputed to be of Phallic origin—the fact that they have no idols, with the exception of Kuan-Ti, the Chinese God of War-their sacrifices of sheep and bullocks—and so forth. All of these you have heard from others who have covered the ground since those days. to say that the results of our investigations among this remarkable

people, and the rather unique nature of the information gathered, were, upon request, embodied in a lecture which I had the privilege of giving before the Kuanhsien Summer Residents Association in the summer of 1911 (albeit we may not have recognised ourselves under such an ambitious title in those days), nearly twenty-two years ago. It was suggested that these records, having a definitely scientific value, should have been published. Perhaps so. I left that public duty to others, however. One authority holds the Chiang-Ih to be the original inhabitants. Another declares they are of the Ouigour race, from Tangut, but "from very early times they have been found in the west of this and the neighbouring province of Kansuh."

It was on one of our first journeys over this road that we saw a peasant crossing the Sungpan River on what the Chinese term a "tuh-soh chiao" (single-rope bridge). He had had his basket of grain ground at the neighbouring mill, and he and his laden basket were being made fast to two pieces of bamboo, an upper and a lower, with the grooved sides fitted to the stoutly woven bamboo rope, the ends of which depended from a built-up heap of stones on either bank of the river. At a word our peasant and his load swung quickly out about sixty yards into mid-stream, and, the impetus driving him some way further, he managed to work the rest of his way hand-over-hand to the opposite bank.

In flood years, such as that in which I made my first journey that way, the Sungpan River becomes a raging torrent. An old river bed, at right angles to the main stream, adjoins the hamlet of Taokuan, and on more than one occasion in the course of my ten or a dozen journeys up and down the Sungpan road, one had had to be carried over, so deep was the flood, on men's shoulders, supported by a stout pole. On one occasion the mule carrying the main belongings of the party was swept off its feet, and the baggage torn from its fastenings and never seen again!

In 1897 I believe we (by "we" I means Mr. Sorensen and myself. Later, Mr. Moyes succeeded Mr. Sorensen) were the first foreigners, certainly the first missionaries, to cover the journey to Sungpan (which I believe Captain Gill gives as approximately 10,000 ft. above sea level) since Mr. & Mrs. Cecil Polhill (as they then were) had been driven forth from that town. If the inhabitants bore the missionaries any ill-will our experience would seem to go to shew that they had forgotten it! There is a considerable Mohammedan population, and some of these were among our best friends, and one at anyrate eventually professed his interest in Christ as his Saviour.

In was one of these also, Ma "A-hung" as he was called, a title given, if I am not mistaken, to their religious teachers or leaders, who had made the journey to Mecca, and who was a rich sheep owner, who on the occasion of the visit of Mr. Wilton, Her B.M. Vice-consul at Chungking, invited my colleague and myself

to a most sumptuous feast, where many of the delicacies which Arabia affords, in the shape of dried dates, figs, grapes, muscatels, and so forth, appeared on the table for our refreshment. Capacious looped silk table napkins were supplied, also scented water and towels, and individual dishes of brass for rinsing one's mouth were available for use between each course. The A-hung was a fine figure of a man, and made a most entertaining host, regaling us with several tales of his travels. Mr. Wilton was keenly interested in sport, but considered the partridges around Sungpan as offering but poor sport, so tame were they that they might have been knocked down with a stick! I saw one man trail a bird to within a few feet, and literally blow it to pieces with small stone pellets from a muzzle loader!

Our chef, Lobsang, was without doubt something of a character. He was really an ex-lama, who had travelled extensively on pilgrimage throughout India, Tibet, Mongolia, Burmah and China, begging his way (when he wasn't practising brigandage) from place to place with his "porpa", or rice bowl, of cherry wood, He seemed to be equally at home in both Chinese and Tibetan, and had also acquired a working knowledge of Hundustani, and was delighted when he found that we had some slight acquaintance with that tongue.

His name he gave as Lobsang, i.e., "good sense," which appellation I am bound to say fitted him in most respects. He was a stocky, sturdy, brawny fellow of thirty five years. He struck me as having somothing of a roguish look, with more than a smack of the adventurer about him, despite his cloth! Indeed, he looked for all the world as if he had stepped out of the pages of Stevenson's Treasure Island"! I have since wondered whether any of the monasteries retained his name on its lama roster! Nevertheless. with it all he had a most disarming smile. He seemed to be a born cook, was an expert tinker, something of an armourer, and knew all about horses. But what intrigued us particularly was his behaviour over the illness of one of the members of our household. This was a young Tibetan, named Sherab, from Tachienlu, who was serving one of our number as language teacher. He had been laid up for several days when Lobsang drew me aside with a great air of mystery, and offered to cure the sick man. When I asked how he proposed to go about it he merely shook his head, saying: "One of our own people: cure him lama fashion!" This was not very enlightening, but after some demur it was agreed he should make the trial.

That evening all of us were on the tip-toe of expectation, with the exception of the sick man himself, who was really too exhausted to take much interest in what was going on. Presently Lobsang entered, waving his dorje in every direction. His face very soon took on what we in the Highlands call a "seeing" look, and I am quite sure he had already forgotten all about his audience. After in a dead swoon!

reciting some incantations he lifted to his lips a horn, said to be a human tibia or shin-bone, and blew a sharp blast upon it. was followed by more dorje waving and renewed incantations. . . . . Finally, another blast, loud and long, like a summons. While Lobsang was blowing the horn I noticed what appeared to be a piece of cow-hide attached to the other end of it, in the form of a whip-lash. This, as I afterwards learned, is reputed to be of dried human skin, otherwise its efficacy would avail little! At this point Lobsang grasped this whip firmly and proceeded to administer blow after blow upon his own bare back, over the right and left shoulders alternately, and truly he lashed and spared not! So vigorously indeed did he apply the whip that great purple weals appeared on his shoulders and back, and so exhausted did he eventually become that he began to sway and stagger, and presently fell to the floor

One of us rushed to the doors and threw them open. other ran for water and dashed it into Lobsang's face. short interval there was a slight quivering of the eyelids, and presently he opened his eyes, looked perplexed for a moment as if striving to recall where he was, then, with a grunt of apprehension rose to his feet, gathered together his paraphernalia, and walked away without a word—without, indeed, even a look at his patient!

The latter, was, as I feared, in a high fever, yet I actually debated within myself whether I should not allow the night to pass and give Lobsang's spirits an extended chance! Wiser thoughts prevailed, however, and next morning he was much better. I told Lobsang what I had done he was quite wrathful, declaring that I had angered the spirits, and he obstinately claimed that the patient's recovery was due to him, albeit of course he had been but an humble instrument in the hands of the spirits!

I begged him to explain to me the meaning of the previous night's performance. He said that the incantations and dorje waving were in order to make the spirits understand that in all things they were subject to the power of the lama. The blasts on the horn were to summon the evil spirits of sickness from the patient's body into his (Lobsang's); finally, the whiplashing was absolutely necessary in order to drive forth from his own body these same evil spirits. I should very much have liked to ask Lobsang whither these same spirits went after he had driven them forth! Did they, for instance, re-enter the body of the sick man. to be finally driven forth by the medicine of the despised "pyii mi" (pron. "chee") "people from abroad"? But, knowing my man, I did not dare!

From Sungpan, during the Fall and Spring of each year, carayans of merchants, Mohammedans mostly, well armed and well mounted-since encounters with Golok brigands were by no means infrequent—and carrying bales of goods, consisting principally of cotton cloth, thread, needles, ribbons, mirrors, and even soap, for purposes of barter; and bringing back in exchange musk, furs, pearls, coral, etc. They proceed as far as Ngaba, a fourteen days' journey, where, from what one could gather, there is quite a large monastic as well as lay community. In this connection I missed one of the opportunities of a lifetime, when, being urged to join such a caravan by some of my Mohammedan friends, I turned down the proposal, on the plea that such an adventure would be more useful to me when I had made myself familiar with the dialect of Tibetan current in that section of the country. Alas! the opportunity never presented itself again!

Speaking of the language, we found the dialect of Tibetan spoken in and around Sungpan, particularly, of course, by the lamas, and traders whose business took them as far inland as Central Tibet, to bear quite a strong resemblance to Lhassa Tibetan, except for the verb endings. I cannot remember whether we noticed that the Sungpan dialect has tones. Baber declares that both Lolo and Hsi-fan have tones. Most certainly Lhassa Tibetan has. Also, as spoken in that vicinity, the guttural quality of the language, which it comes by quite honestly, having a Sanscrit foundation, is greatly modified and softened down, whether by contact with Chinese or not it is hard to say. For myself, I much prefer the more rugged quality of Central Tibetan speech.

· We were fortunate in securing an educated man as our teacher, known familiarly as "Aku Bodpa" (Tibetan uncle) to the circle of his acquaintance, a man then holding the humble position of miller to a neighbouring monastery. He had once been well off, but had lost practically his all at the hands of Golok brigands during a journey in the interior of the country. He was a beautiful writer. And with his help I was able to translate a series of lessons composed with our lamented Ye-shi's help, as well as about half of the Gospel according to St. Luke, into the dialect current around Sungpan.

The circle of our acquaintance gradually extended by means of visits to sick homes, and to monasteries in the vicinity. In this way we became intimate with one big, fine-looking lama from a monastery in the neighbourhood of Chang-la, forty li away in a northernly direction from Sungpan.

Perhaps this would be a good place to say that, while Sir Frank Younghusband's criticism of the lamas of Tibet, as a class, as "still to all intents and purposes demon worshippers; their religion being grotesque, and the most degraded, not the purest form of Bhuddism in existence," is fairly correct, being confirmed by Waddell and others, yet I am glad to say that our experience goes to show that there are not a few notable exceptions.

When, therefore, our lama friend invited us to stay with him during the period of the annual Fair, we accepted with alacrity. This Fair, which of course, included the usual religious ceremonial dance, and was held on the green sward which stretched away on all sides from the monastery, was attended by about 3000 persons, including Chinese, Tibetans, Hsi-fan, Po-lo-tzes and Man-tzes, both men and women. The picturesque garments and ornaments of the women of these different races, thrown against the more sombre colours of the men's garb, made a truly striking chiaroscuro of colour and movement.

We shared our friend's roomy quarters, as well as his buttered tea and tsamba. The first night we were roused from sleep by an unearthly racket, and awoke to see our lama friend reaching for a long sword from off the wall of his room, and for a moment at anyrate my heart was in my mouth, but the next moment he glanced in our direction, saying, laconically, "horse thieves," and disappeared into the night, to where two lines of horses and mules were hobbled.

It appeared, however, that there were more than horse thieves about, for in the middle of the following forenoon, while we were distributing tracts in Tibetan and Chinese, permission for which had been obtained for us through our friend, a Chinese was caught in the act of thieving. He was stripped to the waist, and his hands and feet tied to a strong upright pole sunk into the ground, while one of the lama lictors, armed with long whips, and responsible for keeping order during the Fair, lashed him until great weals appeared all over his back, when he was left exposed to the blazing sun, with the result that the poor follow swooned quite away! Similar treatment (with the exception of the lashing, I believe) had been accorded Mr. Cecil Polhill in Sungpan only three or four years previously. It was more than we could stand, and we sent to our friendly lama and begged him to allow the culprit's friends to cut him down and carry him away. This was acceded to. The Fair was brought to a close by the religious ceremonial dance. which was very similar in nature and performance to the one we had seem in Sikhim.

It was during the second summer (1898) of our residence in Sungpan that we were favoured by a visit from the Rev. and Mrs. Spencer Lewis, who shared our humble quarters for about six weeks. I remember with what relief we handed over all the cares of housekeeping to Mrs. Lewis! Did I say all? Well, not quite! I recollect quite clearly how she made Mr. Moyes and myself slave away at whipping up with chopsticks a supply of Tibetan butter for the table, passing it through several washings of salt and water in an endeavour to remove the rather striking odour, as well as the hairs which had once formed part of the lining of a sheep's paunch! I dare vouch Dr. and Mrs. Lewis have never lived on a higher level than they did then, albeit milk at eight cash a cup, flour at 28 cash a catty, and butter for the washing would seem to controvert that statement!

As the result of an occasional visit to one or two neighbouring monasteries, we one day had a call from a while haired man, abbot

of one of these. He had heard our message, telling of a "Kyab-gon" (Saviour) for all mankind, and he had come to learn further of this Great One. He went on to say that some eighty winters had passed over his head, and, although he had longed and hoped for some such heaven-begotten One, only now had his ears heard the tale! "How long," he asked, "had the Western peoples known of such an one?" When I told him, "Why," he asked, "have you been so long in bringing us the message?" Why, indeed!

I have never ceased to regret that, for reasons which I need not go into here, circumstances arose which seemed to render it necessary for me to withdraw from the frontier. A year or two later, viz., in 1900, a companion and myself made the journey to Yuch-hsi-ting, as it was then called, 5380 ft. above sea level (I understand Mr. Openshaw covered part of the same ground later, in 1909) with the intention of entering Independent Lololand. And it was then, when we covered part of the ground earlier traversed by Colonel Baber, before whose time nothing was known of the existence, race, and character, of these people, that we made our first acquaintance with them. Baber affirms by the way, that the term "Lolo" is one of insult, and claims that they are variously known as Losu-No-su-Ngo-su-and even Le-su; and declares they have been confounded with Miao-tze-Man-tze--Hsi-fan-Yeh-ren, and T'u-ih, some of which are entirely devoid of ethnological significance. "A certain French missionary holds that the Mantze, the Ih-ren, and the Ih-kia are one and the same people." The Lolo written characters are declared by another French traveller to "have remarkable affinities to the writings of Sumatra." In another place Baber calls the Man-tze the aboriginal inhabitants of Szechuan, and terms the Hsi-fan or Man-tze sub-divisions of the Tibetan race, and in this I am strongly inclined to agree with him.

As you have heard, through Dr. Mullett and others, they are a tall race, straightly built, with muscular limbs, and wear what Baber calls "a sleeveless cloak of felt, gathered round the neck with a string." Their women wear jackets and "flounced and pleated petticoats, their hair being twined into two tails, and wound round their heads." The men wear a coiffure which Baber calls a "horn of hair, sometimes a good nine inches long," at which we were naturally inclined to be amused, but which we could gather bore some significance of a religious nature. What were called the Blackbones appear to be the nebles, and the White-bones Baber calls "their retainers."

We found these people really expert in the use of a sling, such as the shepherd lad, David, might have used on Goliath, I imagine, consisting of twe long, strings of tape, with a place at the end for a pebble. The sling is swung round the head two or three times, when, one end being let go, the missile leaves the sling with great force.

They did not appear to have any idols, but worshipped—as we were shewn—the spirits as symbolised by three twigs of the willow tree, which were set upright in the ground, the centre one being rather taller than the other two, the significance of which we were not able to ascertain, as we did not wish to push our enquiries beyond the limits of courtesy. Has their signifiance anything akin to that of the "rowan" (mountain ash) "wands"... "up in the hills at home" of which a recent article in thee English 'Times' speaks? One wonders!

One evening my companion and myself, after travelling most of the day over great undulating rolling downs, having managed to get away ahead of our carriers (who, in fact, did not catch up with us that night), found ourselves seeking shelter with a young Lolo and his wife, whose hut appeared to stand alone in the midst of the downs. We fell head over heels in love with both of them at once, and they made us welcome to spend the night there. We lit a fire and had our supper of tinned bacon and fresh eggs in the lee of a hay stook (or "rick" as we should call it in Scotland), and would right gladly have slept there. The wind, however, proved too violent, and we were glad to take shelter in the hut, which seemed to consist of a "but and a ben." It was with real regret that next morning we took leave of our kindly host and hostess.

Alas for our proposed trip into Independent Lololand which the main road to Ning-yuan-fu (four stages distant) skirts in passing, and to which Yueh-hsi itself appeared to be the natural gateway! When we called to pay our respects to the magistrate, while received with all due courtesy, we were met with a non possumus! It appeared that he had received instructions from headquarters—presumably Chengtu—on no account to allow us to proceed. This was a great blow to our gradually soaring hopes! It naturally occurred to us to try the venture without the usual escort. Unfortunately it occurred to him too, and the magistrate promptly forestalled any such intention on our part by putting an embargo on all carriers, thus effectually restraining us from carrying out our much-hoped-for plans.

Doubtless, however, the inhibition was providential, for when we reached Yachow on our return journey we found letters advising us that, by reason of the grave situation caused by the Boxer Rising, Consular instructions had been issued requiring all British

missionaries to repair to the coast without delay.

It was in 1900-1, while acting as interpreter to the China Field Force at Peking, that I had the good fortune to become acquainted with Lieut-Colonel C. C. Manifold, of the Indian Medical Service. I found he was very keen about Tibet, and proposed, when the Boxer situation had cleared up, to have a try at reaching Lhassa by way of Tachienlu. Subsequently, it was arranged that I should accompany a Captain Hunter and himself as interpreter to the expedition.

In the spring of 1902 both Colonel Manifold and his companion duly arrived in Chengtu, prepared to proceed with their plans for entering Tibet from its western frontier. Very shortly after their arrival, however, Colonel Manifold was in receipt of advice to the effect that, in view of the projected Younghusband expedition to Lhassa, the authorities considered it inexpedient for his (Colonel Manifold's) non-official expedition to proceed. As a matter of fact, the Younghusband Expeditionary Force started in the latter end of the year 1903, and did not reach its objective—Lhassa—until the following year.

Accordingly, after spending part of the summer of 1902 on Mount Omei, Colonel Manifold returned to India. And with his departure, my castle in Spain—otherwise, my dream of reaching the holy city of Tibet Lhassa (literally, "place of the gods")—

vanished into this air!

# FREE TRANSLATION of a STONE TABLET AT LIFAN

Forbidding Ch'iang Men from Marrying their Deceased Brothers' Wives.

#### T. TORRANCE

This proclamation is issued by Magistrate Teng of Lifan who has been ten times promoted by the Emperor and given the rank of prefect. It relates to the custom of second marriages and is intended for the preservation of virtue thereanent. The people should know that according to Chinese law, persons of the same name are not allowed to marry each other. The penalty of breaking this law is, at least, the giving of 60 blows to the offenders and forcing them to separate. If any one marries the wife of a deceased relative, though a distance removed, yet it reckons as To marry a niece is forbidden and the punishment for infraction of this is 80 blows. Neither is it allowed to marry an aunt; the penalty here being 100 blows. These who marry the wife of a deceased uncle of their fathers are beaten 60 blows and banished for one year. For marrying a deceased nephew's wife the punishment is 3 year's banishment or execution. For marrying a deceased father's or grandfather's concubine or for marrying an aunt the penalty is beheading. For marrying the wife of a deceased elder or younger brother the penalty is death by strangling. These cases now cited show what the law is, therefore how can relatives and those of the same name be allowed to intermarry? The law must be observed or severe punishment will follow.

In this district of Lifan an old bad custom still persists of a of a man marrying the wife of a deceased elder or younger brother. This is called "chuan fang" or marriage of revertion. The reason for this is alleged to be the fear of marrying her to a stranger because that would hinder the prosperity of the household, so it is thought to be a marriage of convenience. But this ignores Chinese law; is entirely opposed to the preservation of virtue in human relationships; and merits severe punishment. From now on the people in the Lifan prefecture are forbidden to continue this custom of theirs. This proclamation is not retroactive but in future the widow of an elder or younger brother must not be forced to marry her late husband's brother. She may preserve her widowhood

for the sake of her good name. But if she wishes to remarry it must be to one of another name. No man is henceforth allowed to covet the benefits of marrying a deceased brother's wife so that the principle of virtue may not be destroyed. If he does, his punishment will be very severe. Chinese marriage law must be hereafter fully observed in all its aspects. Then the virtue of human relationships will be duly cultivated.

1, the Prefect, seek to instruct all you people according to loyalty, filial piety, constancy and righteousness. We cannot bear to see ignorant people destroy these principles in their evil relationships, for they are contrary to the laws of the State and of Heaven. I, therefore, forbid you people to continue your chuan fang marriages. You must regard the custom as shameful. All should publicly encourage each other to reform your social customs for the sake of your good name. This is our sincere hope.

Hereafter, if any one dare to break these new regulations serious punishment will follow without hope of mercy. The law will be rigorously enforced. Be afraid. Be careful. Do not disobev.

The 6th year of the Emperor Kuang Hsü.

OR A. D. 1881

Copied by Hsiong Kih-an and Translated by Li Yoh-ren

for T. TORRANCE.

## A SUMMER COLLECTING TRIP AMONG THE CH'IANG PEOPLE.

#### D. C. GRAHAM.

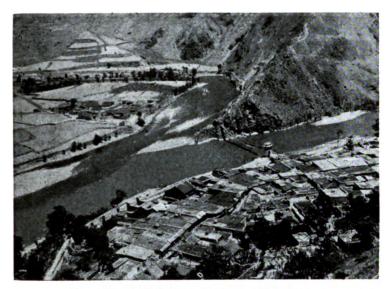
For months I had expected to spend the summer of 1933 at Tatsienlu and beyond with my old friend Mr. Edgar, but I was unable to carry out this plan because of the civil war that was raging in Szechwan during the early days of July. To reach Yachow at that time one would have to cross a firing line and also to pass over roads infested with robbers. Then a victory of the twenty-eighty army opened up the way through Kuanhsien to Wen Ch'uan, Wei Cheo, Li Fan and Tsagulao, so in company with Mr. T. Torrance, Dr. Morse, Dr. Agnew, and several university students I started out for that region.

Near Kwanhsien we found that in one place the enemy troops were less than a half mile away from the main road, but we reached Kwanhsien in safety. The bridge dividing the city had been destroyed and very recently rebuilt. The city had been through a hard siege nearly two months in duration, with heavy fighting and cannonading, and had not yet returned to normal.

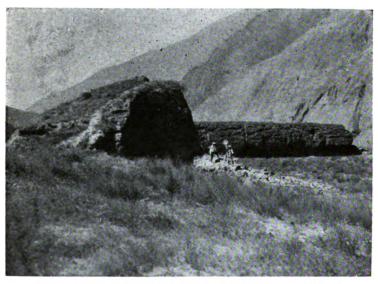
Soon after we left Kwanhsien we were fired on five times by troops across the river, but nobody was wounded. On July 21 we reached Wen Ch'uan, where we stayed in the chapel. Next day Dr. Morse and Dr. Agnew departed for Tsagulao, but Mr. Torrance and I remained in Wen Ch'uan to collect articles used by the

Ch'iang people and natural history specimens.

On July 24 we left Wen Ch'uan, passing through Wei Chow to K'a Gu, a Ch'iang village near the T'o river. Here the houses were made of unhewn stone, and were flat-roofed. Notched trees or logs were used for ladders, and sacred white stones could be seen on the tops of the houses. Similar stone houses with flat roofs and with notched logs for ladders are to be found among the tribespeople in many parts of the China-Tibetan border and far in the interior of Tibet. On July 25 we climbed the mountain to Mu Shang Tsai, a Ch'iang village whose altitude is eight thousand feet above the sea leve. Mr. Torrance remained in this village for a few days, but the collectors and I stayed in a temple about a thousand feet higher up the mountain side. This proved to be a rich spot for collecting. On July twenty-fifth with a guide and a coolie, I crossed a very rough mountain pass whose altitude was 10650 feet, and on the way back killed a wild mountain goat which we saw on the side of a cliff about three hundred vards away. On the night of the



The city of Weichow, from the cliff above.



Clay walls of the ancient fortress of Giang Wei Chen, on the cliff above Weichow. This is said to have been built by the ancient Chinese warrior Chang Wei, about 3 A. D.



twenty-seventh we had such a wonderful catch of night moths that it took three collectors until nearly noon next day to take care of it.

On July twenty-eighth we went down the mountain to Dong Men Wai, another Ch'iang village, where a Christian church has been built. On the way up the mountain to Mu Sang Tsai and down again to Dong Men Wai we passed over several precipices where the path was narrow and the foothold precarious, and where a slip would have meant a fall of hundreds of feet. There were spots where recent freshets had washed all the dirt away, and where the only way to cross safely was on hands and knees. Mr. Torrance's mule had to travel Dong Men Wai by another road.

At Dong Men Wai the collecting of natural history specimens was very poor but we secured some fine ethnological specimens. On July 31 we climbed up the mountain to a Ch'iang village called Bu Lan Ts'en, where we remained until August third. Near this village, all along the mountain side, a mud wall has been built to

keep wild boars away from the fields.

On August fifth I went up the Dong Men Wai valley to O Er, the last Ch'iang village as one passes up this valley to the high mountains. The day after my arrival I secured native guides and went out hunting, killing three wild mountain goats which weighed from forty to seventy catties each. The guides tried to steal one of the goats, but did not succeed.

On August eighth I left the collectors at O Er, and rejoined Mr. Torrance at Dong Men Wai. We spent that night at T'ao Tsi P'in, or Peach Flat, a Ch'iang village with two high watch towers. With two young men I climbed up a rugged cliff to a stone temple, inside of which there was nothing but three sacred stones and many pairs of horns from the goats that had been offered by the Ch'iang to A-Ba-Ch'i, the Father in Heaven. Next day we proceeded to Gieu Tsi T'en, a Ch'iang village which is the home of a hereditary Ch'iang chieftain, Yang Shioh Bi. We were entertained in the home of the chieftain. On the second night the people performed a folk dance which was very interesting. The men and women did not dance in pairs. Men danced in unison, singing as they danced, then the women sang the same words and danced in the same way. Near the end the dancers showed their good will by making up songs that were complimentary to their foreign guests. One of the verses ran thus; - "Mr. Graham has endured great hardship in coming to this place. When he returns home, may be become wealthy."

On August 12 I returned to O Er, and the next day started on a hunting trip to the high mountains. I hoped to bag some big game. On the first day we passed far beyond the last human habitation, on a road that was so bad that in some places the coolies could hardly get through with their loads. The next day the road was even worse, but in the afternoon we reached our

destination and pitched our tents at the elevation of 12500 feet. All around us were mountains whose highest peaks were seventeen thousand feet above sea level. The mountain sides were covered with dense forests, or with stretches of wild grass and flowers. Patches of snow could be seen. On August fourteenth, with two Ch'iang guides. I climbed up the mountain to a cave whose altitude is 14100 feet. We slept in the cave that night, with a fire at its mouth to keep us warm. Next morning we got up early and climbed to the altitude of 15300 feet. There were plenty of tracks. but hunters had recently been there, and no wild animals were to be seen. However, I secured some rare butterflies, flies, and bees at the altitude of 15200 feet. During the next few days our food supply became very low, and we kept from a state of semi-starvation by eating pheasants, wild celery and onions, and wild cherries, raspberries and strawberries.

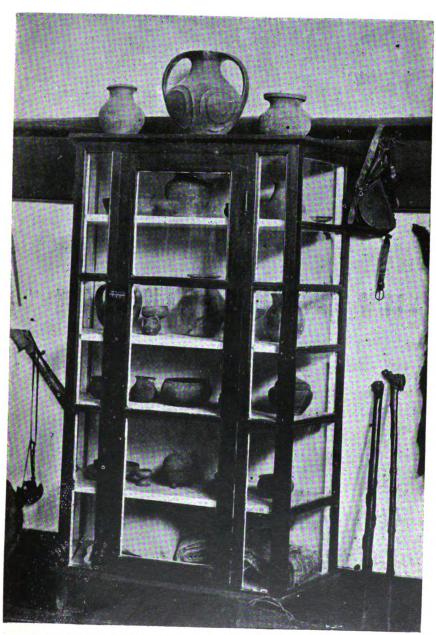
Near the camp was the smallest glacier, at the lowest altitude, that I have seen or heard of in West China. Although the snow never melts away, the length of the glacier is only a few hundred feet, and its altitude 13500 feet. The glacier is caused by the drifting of large quantities of snow during the winter. A small

stream runs through and under it, making a cave.

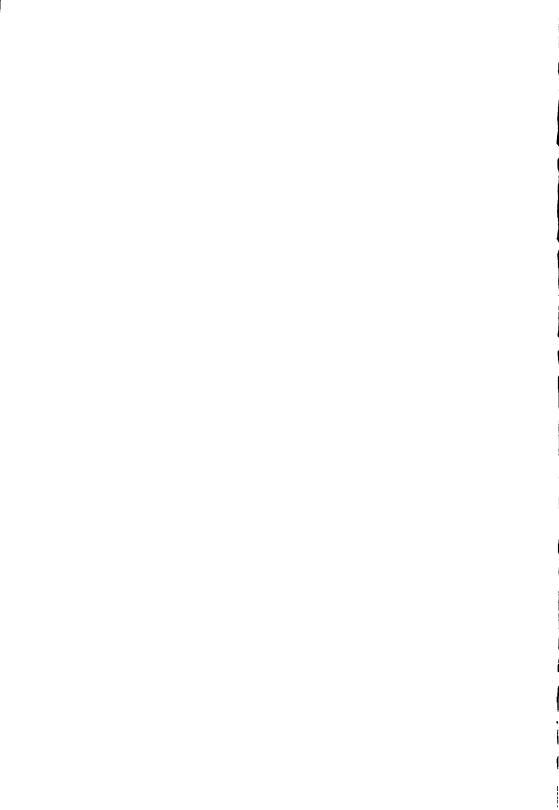
On the morning of August 17 I returned to O Er, and that afternoon joined some natives in a bear hunt. A big black bear had appeared near the village, and at night was devastating the farmers' corn. A bear hunt was therefore organized, and I was invited to take part. Ten men with rifles surrounded the woods in which the bear was hiding. I was placed at a spot where the bear was sure to pass by about three hundred yards away. Four men went through the forest, shouting and throwing stones. After some time the bear appeared, lumbering along through the tall grass My first shot missed. The bear merely glanced my way and went on. The second shot went through his head, killing him instantly, and the big beast rolled down the mountain side like a great black ball. It took four men to cary him on level ground, and six or eight to carry him up the mountain side to our camp.

We left O Er on August 21, reaching Li Fan on August 22, and Tsagulao on August 23. At Li Fan we met Prof. and Mrs. Brown and their daughter, and Mrs. and Miss Hibbard. At Tsagulao I saw a folkdance of the Kia Rong very similar to the one which I witnessed among the Ch'iang at Gieu Tsi T'en. I also visited the Tsagulow lamasery, which is large and beautiful.

There was an earthquake on August 25. Mr. Torrance and I were in the chapel at Wen Ch'uan, and for a few minutes it seemed as if a great giant had hold of the building and was shaking it with all his might. Large boulders began to roll down the mountain sides, and in some places great clouds of dust arose where whole cliffs had fallen away. Later we heard of several people who had been killed, and many more who were injured by the rolling rocks.



A case in the Archeological Museum of the West China Union University, containing ancient Ch'iang pottery. The age of this pottery is approximately 300 to 2000 years. It is no longer made by the Ch'iang. The two-armed jugs are said to be, in Eastern and Central Asia, peculiar to the Ch'iang people.



At Dieh Shi the cliff on which the town was built rolled down into the Min River. The town was destroyed, most of its people were killed, and the Min river was damed up so that a lake was formed, reaching many miles up the Min valley, and inundating the road, the farms, and another village. Near the end of October this dam broke away, and the stored-up water rushed down towards Kwanhsien, partly destroying Wen Ch'uan and Wei Chow, washing away houses, temples, bridges, and villages, running the fall crops, and

drowning hundreds and perhaps thousands of people.

We reached Chengtu on September first. I brought back with me a large collection of insects, reptiles, mammals, and birds, and some fine pottery and other articles used by the Ch'iang people. It took twenty-seven men to carry us back with our equipment and specimens. The pottery and the other Ch'iang cultural objects are already in the West China Union University Museum of Archeology, Art, and Ethnology. The natural history specimens have all been forwarded to the United States National Museum, but many of them will ultimately find their way into the West China Union University Natural History Museum.

### A METEORITE CRATER IN SZECHWAN?

#### J. HUSTON EDGAR

In the Geographical Journal of March 1933 there is an article on meteorite craters. One of them, near Henbury in Central Australia, is of interest to me, because during 1928 our party bivouaced about seven miles from the cattle station without suspecting the existence of a meteorite in the vicinity.

This misfortune has put me on guard against similar possibilities in the future, and enables me to introduce readers of The Journal to a roughly circular "crater" on an old terrace above the town of Chingchi Hsien. If a guess from memory is allowable, it may be five to six hundred feet in diameter, and a hundred and fifty to two hundred feet in depth. It probably never contained water, owing to a small rainfall and the absence of feeders. The crater, therefore, is not the result of material carried off in solution by former springs and streams at a higher level. It could not be explained by a volcanic explosion or the subsidence of a cone. Intelligent human agency will not explain it, and earth movements or irregularities in glacier debris do not seem admissible. Is it then a meteorite crater? We have no proof so far. There is, for instance, no evidence of iron, nor is this material mentioned in the traditions of the people. A beautiful basalt, however, often like huge crystals, is common, although the prevailing material is sandstone. The blocks of basalt are not introduced as evidence in favour of a meteorite theory, but readers should bear in mind that these bodies are by no means always of the iron type.

As the site of this crater is only three days from Yachow, and easy of access, some members of the Society might spend a pleasant holiday there, and at the same time solve a problem of some importance.

### MISSING LINKS.

#### J. HUSTON EDGAR.

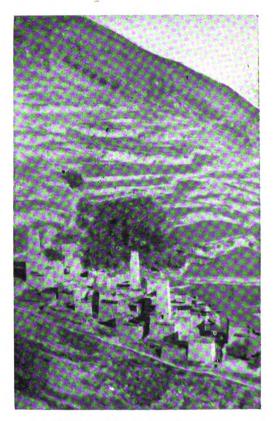
More than a generation ago the Chinese and Tibetans were positively certain that there existed in lonely mountain regions creatures that would have agreed with the common conceptions of "missing links." As a young missionary the writer was very much interested in the rumours, but did not include these unpleasant beings in his missionary programme. Were the rumours pure invention or was there a sub-stratum of fact awaiting investigation? The alleged recognition of the footsteps of one such savage in the snow, and his howl of distress, by Yang Ming An's father were not seriously accepted as proofs of their survival. But other items of information demanded some consideration. About thirty miles from Tanpa is the native region of Han Niu. Off the beaten tracks, it is in some ways peculiar. According to the same Mr. Yang the more ancient castles, normal in other ways, are noted for low and narrow doors, which are described as being about four feet six inches high and two feet eight inches wide. On asking the reason, he was told that they were built to protect the owners of two hundred years ago from savage, hardly human monsters, which occasionally attacked the villages and killed and ate all who failed to escape. Farmers working in the fields were also often molested. To obviate disaster it was the custom to wear on the arms iron cylinders, eighteen inches long and three in diameter. When attacked suddenly the creature was allowed to grasp the sheathed arm, which the owner instantly withdrew and fled for his life. So much for Han Niu.

In the contiguous region of Yü T'ong, even at the present time, in the first month of the year, we have what is known as "The Demonstration of Slaying the Savages." The mountaineers gather at an arranged meeting place, and drinking great quantities of water, supposed to be "spirits," simulate intoxication, and slash at each other in a seemingly frenzied manner. The object of this sham fight is supposed to show the present generations how their ancestors rid the land of "cannibal savages." But how? Long ago these unrelenting creatures would hide in the cliffs above the villages and at night come down and lead off their victims. However, someone found that they had a passion for alcohol, and when intoxicated would madly assault anything, living or dead. So at night jars of the "firewater" would be placed around the dwellings, and the savages after greedily imbibing it until intoxicated, would

turn on their companions and fight until all were wounded or slain.

Is there an explanation? It is just possible that formerly these regions were populated by savages of a very low type. Near Tanna stone implements of crude workmanship have been found. locality is typical. There are a river junction, caves, and an adjacent hollow, protected from the winds and warmed by a morning Food, fuel, and shelter are at once suggested, and the crude artifacts indicate that the opportunities were exploited. which is at present much in favour as a talisman, then furnished weapons and implements. It, as now, was probably used for producing fire. Is it not possible that in cracking the material for this purpose some of the fragments suggested the weapon? Naturally, also, material that supplied warmth and protection would gradually demand an apotheosis of some kind. Its value would. of course, gradually diminish, but the old time sanctity would linger on in the talisman phase. The coracle, also, may be a cultural witness to an absorption of the paleolithic man into the present human amalgam of the Kin Ch'wan. So possibly are survivals of matriarchy and the worship of Mur'do, or the Ogres' Then we have a most primitive dress: a frontal fringe of cords and two capes, one overlapping the other. We would, therefore, suggest a connection between the artifacts of Tanpa and the wild men' traditions in the hills and valleys around: and at the same time point out that many cultural peculiarities almost prove the hypothesis.

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A Ch'iang village, showing towers.



A group of Ch'iang.

## THE BASIC SPIRITUAL CONCEPTIONS OF THE RELIGION OF THE CHIANG.\*

## T. TORRANCE.

In my research work among the Chiang tribesmen in the N. W. of Szechwan I early came to the conclusions; (1) that they came originally from somewhere in Asia Minor, and (2) that their Old-Testament pattern of religion represented an early patriarchal type, known to the Hebrews before their settlement in the holy land, and followed by them more or less after arrival there. To this opinion we still mainly adhere. Though much more has been learnt in recent years about their customs and ritual nothing has come to light to change this view in any radical sense.

It is known that they speak a language allied to that of the Tibetans, Chiarong and Nosu. The presumption is that they are of one stock. But, nevertheless, they have certain racial characteristics of their own. They are finer in physique and frequently show Semitic features of countenance which these races fail to do. Many of their customs, too, indicate a closer affinity to those of the Hebrews. Even if it be asserted that the Tibetans and Chiarong came also from the West—which we believe—yet, because of these facts, caution is needed before sweepingly including them in the same racial stock as these three races. The Chiang is a sort of a Jew among our West China peoples. You can scarcely hide him even when his blood has been mingled with a strain of Chinese. He has a way with him, an appearance and a religious outlook that marks him out from others around him.

We admit we have been criticised for doubting the classification. But the language test does not always hold. There are many races talking English to-day who cannot be called Anglo-Saxon. Did the Chiang always speak the language they do to-day? He would be bold who asserted they did without sufficient proof of the same. The suspicion is strong that they did not. To-day, as we hear more of their wonderful religion this suspicion may grow stronger than ever.

What then is the nature of the Chiang religion? It is simply that of the olden-time worship in the high-places. We know that this was followed by the nations of Canaan and after their day by

<sup>\*</sup>Lecture delivered to the West China Border Research Society, May 12, 1934.

the Israelites themselves up to the time of the captivity. If opinion does differ somewhat as to the exact character it assumed, whether among the Canaanites or the Israelites, the fact remains that they both did worship the Deity or deities in such sanctuaries.

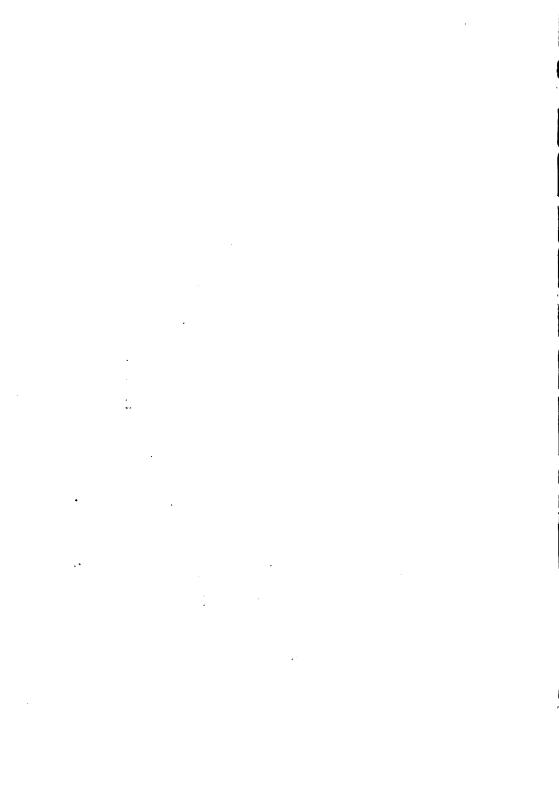
The Canaanites had their mountain groves or high-places with a stone pillar or pillars in each, a tree or sacred pole, an altar and carved images of their gods. This is borne out from the command of Moses to the Israelites in Deuteronomy 12: 3: shall utterly destroy all the places, wherein the nations which ye shall possess served their gods, upon the high mountains, and upon the hills, and under every green tree: and ye shall overthrow their altars, and break their pillars, and burn their groves with fire; and ye shall hew down the graven images of their gods, and destroy the names of them out of that place." Then in Deuteronomy 16; 21 a further command is given: "thou shalt not plant thee a grove of any trees near unto the altar of the Lord thy God, which thou shalt make thee. Neither shalt thou set thee up any image; which the Lord thy God hateth." The Israelites to begin with obeyed these commands, but worship in high places persisted. The prophet Samuel sacrificed there. The sanctuary at Gibeon, where Solomon once offered a thousand offerings, was called a high place. And the godly King Jehoshaphat, who turned not aside from what was right in the eyes of the Lord, yet did not hinder the people from burning incense in the high places. The Israelites, however, in times of religious relapse so restored the Canaanitish manner of worship that Ashera, the Hebrew term for grove, came to represent as well the images and pillars introduced therein.

The Chiang make no representation, carved or hewn, of Deity but they publicly worship Him in a sacred grove high up on a mountain side or a mountain top. In the grove there is a sacrificial altar built of unhewn stones. Behind the altar grows a sacred tree which is an essential part of the sanctuary. Between the tree and the altar, or on the altar, stands a white stone of glistening purity, generally of quartz. Such a grove it will be noted is more elaborate in its contents than that recognised by the orthodox Israelites, yet has nothing of the corruption of that of the Cana-Essentially, this mode of worship, it will not be denied, suggests oneness of origin with both Canaanite and Hebrew, and brings down to us, does it not, a primitive form of Semitic worship in the dress of hoary antiquity? Doubtless the Canaanites did not originally have the corruptions that later characterised their groves and called forth the divine displeasure. Their cult, apparently, was a mixture of Semitic observance and Sumerian superstition. The Chiang, more honourable than the Canaanites, have maintained their monotheism comparatively unsulfied, and have given us an example of religious constancy to be found, apart from the Jews, ther people. in '



The wife of the chief of the Ch'iang at Lifan.

A Ch'iang woman carrying water.



The use of a sacred White Stone is a leading feature of Chiang worship. It is set up both in the groves and on the roofs of their houses. In the grove it stands above the altar of sacrifice; on the roof it is placed ever the middle of the battlement above the back wall. The Deity is not supposed to reside therein and it is not, therefore, worshipped. The Stone is sacred, in the first place, because of its whiteness. Whiteness betokens goodness in contrast to blackness, which betokens evil. Its colour thus symbolises the holiness of God who hates evil and loves good. It is sacred, secondly, because it reminds men that he is the natural Rock or Mount of their strength. That God is of purer eyes than to behold iniquity, and that he is the Rock Source of all good and blessing, constitute the twin fundamental tenets of their belief.

The Stone requires to be conical or mount-like in shape and set up as found in its natural or unchissled state. Occasionally small white stones are placed around its base but these have no religious meaning. The signifiance of the Stone itself is the continual intimation it makes that God may only be approached by the way of holiness, and is only found when men respond to this demand of his character. As a monument on the house top it bears an unambiguous witness that those who dwell under it are a people who recognise the God of Heaven as their God, and are willing to serve him according to the immemorial customs of their fathers.

It will be seen from this that the religion of the Chiang is not one of stone-worship. To speak of it as such is to talk at random and gives a misleading impression. Some who want to believe that it is, because the affirmation sounds sensational, are the worst They prate about the White Stone worship but they have nothing to support the assertion except ignorant hear-say, or wilful misrepresentation. The Chiang are not animists. They know whom they worship and they do not worship him ignorantly. This requires to be said because already it has been stated far and wide that the Chiang worship the White Stone. A foreign journal once announced that the tribes people worshipped a white stone. The news was sensational; that was the effect desired. Truth, therefore, went by the board. Now, lithelatry is a big word. It has a scientific or learned sound. The mere use of it is supposed to be ample proof that the Chiang are litholatrists, and the proving of this is necessary to be able to say they are animists another big word. The Israelites had two sacred stones in their Holy of holies. Were they litholatrists? They lifted up their eyes unto the hills from whence came their help. Did they worship the hills? Did they not expressly state at the same time that their help came from Jehovah who made the Heaven and the earth? Let us be as just to the Chiang as we are to the Israelites.

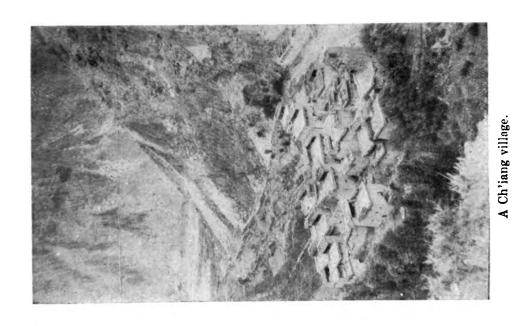
It is useless to say that one was told by the Chinese that the Chiang worshipped the White Stone. The Chiang themselves deny

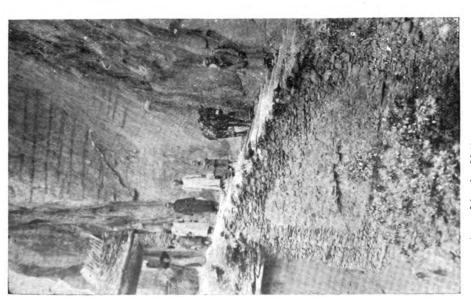
that they do. This should be enough. At the same time some of the ignorant among them may say that the White Stone is their "Pu-sa." Yet the same man tells you that he worships God and none other. In his mind there is no contradiction. The fault is yours if you fail to understand him. Certain words to him have a different meaning than to you. He speaks Chinese as a secondary language. Then he is talking down to you. He is pitying your ignorance and with his imperfect Chinese gives a wrong impression to the listener who has not wit enough to understand this. For instance, a tribesman may call his photograph his "pu-sa." But he knows enough that it is only a likeness. Though he uses this name for it that would not justify any one saying he worshipped himself, i.e. his own likeness, and is therefore, to be scientifically classed as an animist.

Sacred stones in primitive times were very comman. were used in many different places in many different ways. some instances they appear to have been worshipped. that the Canaanites did. But no true Israelites did. The interest to us of the Chiang use of the White Stone is in the reflex light it throws on the use of memorial and covenant stones by the Hebrews. Jacob set up the stone that served as his pillow to mark the site where Jehovah appeared to him in promise and blessing. he made his yow and from there he started on his journey with the assurance that the all-seeing eye of a gracious Providence watched over him for good. The stone was a mark, a memorial and a sign of his vow. For to him Heaven had opened in that place, and it was given him to see there a ladder of intercourse between earth and Heaven, very dreadful but very reassuring. We shall yet see that the Chiang hold almost identical views regarding their Stone which brings into fine relief those of the patriarchs.

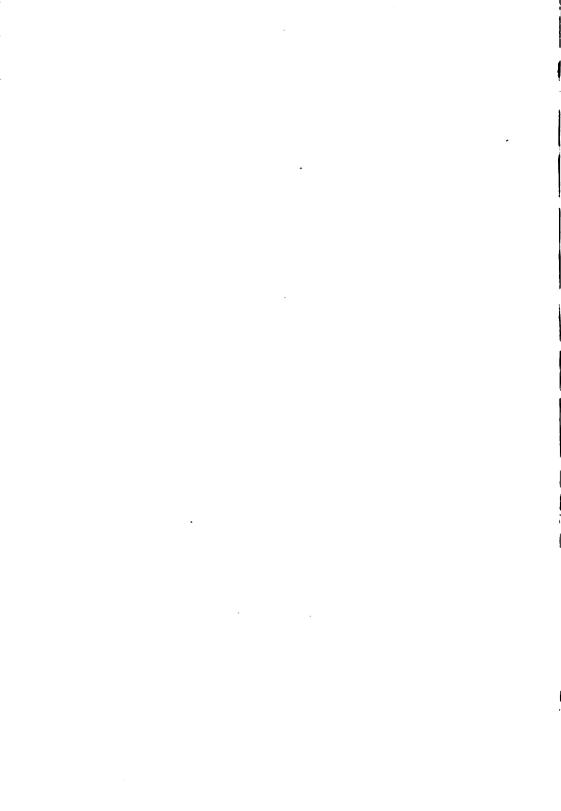
Jacob in his dving blessing to Joseph spoke of the Mighty One of Jacob who caused his bow to abide in strength and made his arms strong when he was grieved and shot at by his persecutors. The God of his father "from whence came the Shepherd and Stone of Israel, should help him and bless him with the blessing of Heaven above and of the deep that croucheth beneath." Obviously in Jacob's mind the Shepherd of Israel and Stone at Israel were In his own case he speaks of this Shepherd and Stone as the Angel who redeemed him from all evil. It was he who spoke to him in Paran; He, who as a man, wrestled with him at the Jabbok and by whom he uttered his parting blessings on his sons. The Chiang do not explicitely speak of their Stone as Shepherd or Angel but they do speak of an Angel or God sent man who acts for them in their approach to God at the altar where the Stone stands. The Chiang and Hebrew concepts are so closely allied that they may be called alike in everything but the terminology.

It was on, Sinai, the Mount of cloud and fire that Jehovah revealed himself to the Israelites and made known his Voice to





A road in the Ch'iang country.



them in The Ten Words. In the song of Moses, Jehovah is described as "Our Rock." The Rock followed the people in the wilderness and from the rock, water was made to gush forth to supply their needs. A Pillar of cloud guided them by day and a Pillar of fire by night. Joshua on Mounts Ebal and Gerizim respectively set up plastered pillar-monuments of blessing and cursing with the Law written on them. And when he made a covenant with the heads of the nation before his death, he took a great stone as a witness and set it up under an oak that was by the sanctuary of the Lord, in the same fashion as is found in the Chiang country to day. Though the words of Hannah are unknown to the Chiang they yet fully subscribe to them in their thought content: that "there is none holy as the Lord: for there is none beside Thee: neither is there any rock like unto our God." (1 Samuel 2; 2).

The Sacred Tree is another indispensable feature in the religion of the Chiang. All the trees in the grove are sacred and for this reason none may be cut, but The Tree behind the altar and adjacent to the White Stone is e-pecially sacred. It is the one that gives locality and centralization to worship, even as it is the Whiteness of the Stone that indicates its mode and the altar that gives it reality. What further significance The Sacred Tree once had is not known. It would be easy to surmise that it was regarded as the Tree of Life, but the Chiang, as far as our knowledge goes, say nothing definite of this. They merely declare that it belongs to God. To it may be tied the sacrificial victim before being offered. And it is by way of the Sacred Tree that God comes when he descends from Heaven to meet His people in the Grove and by way of it he ascends again at the conclusion of the offering.

On the Chiang house tops we meet the Tree again. A straight branch is inserted behind the "O-pee" or White Stone. Here special perforated stone slabs hold it in place. Frequently two others, accompany it, one at either corner of the back parapet. In this way the flat roof takes the character of a private grove for the offering of family sacrifice. After the sacrifice these are left standing and a visitor by their appearance can always tell approximately what length of time has elapsed since the last offering was made.

A white outline of a Tree is not uncommanly drawn on the outside wall of a house. Drawn thus it is a symbol of blessing and prosperity. He who seeks God finds grace and worldly favour for he is the Author of all good.

Among the Chinese in Western China a symbolical tree with figures on either side was once in use. We have seen the portraiture on tomb bricks of the Han dynasty, on a sarcophagus and on ancient bronze mirrors. Where the idea originated or what it represents can only be surmised. To Westerners it suggest the Genesis story. Did the Chinese borrow it, one asks, from the Chiang?

The altar is the third great requisite in Chiang worship. Often it is a platform of earth faced with natural shaped stone. Or it may consist of a slab of stone resting on other stones. But of whatever form, the stone or stones used must remain unhewn. No human shaping is permissible. Any cutting or polishing of the stones defiles them for use in the divine altar.

Occasionally a flat rock in situ is utilized. Such, of course, answers the natural requirement. The approach to Deity may not be of human design or of man's invention. The approach is divinely provided apart from the worshipper's help or contrivance.

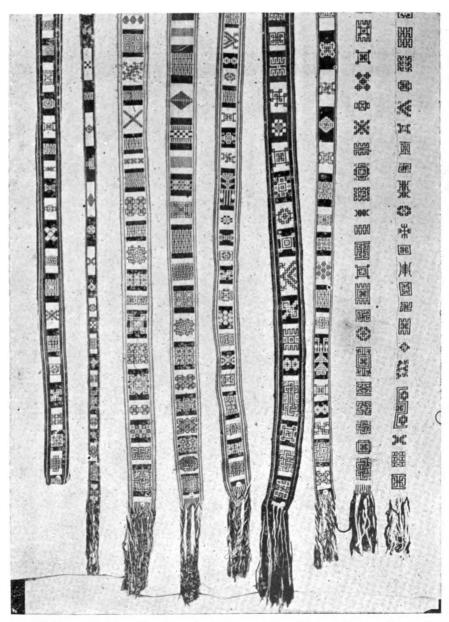
At the base of Mount Sinai after the reception of the Ten Words, the Israelites had instructions conveyed to them of a corresponding nature. In sacrifice an altar of earth was to be raised, but if stone were used no tool should be lifted upon it, for that should defile it. Here is one of the many touches of intimacy in the practices of the two peoples that call for mutual consideration and comparison.

The Grove. The Tree, the White Stone and the Altar together constitute the Chiang sanctuary in the High Place. All are Sacred. One is not without the other. None of them is worshipped but all form essentials in the approach of man to God and of God to man. Account for the origin of these ideas as one may, we cannot deny their existence, or refuse to believe that the Chiang themselves give full credence to the tradition of their divine establishment.

A High Place is not chosen, as might be supposed, merely for its commanding elevation. It is rather chosen because they think of God as dwelling on high in the Heavens; and ascent to his altar gives natural expression of their desire to meet him. Up on the mountain side in the heart of a grove the world is shut out and the soul shut in with God. Nothing intervenes between man and his Creator. Here amid unspoilt surroundings, in the true Sanctuary of nature, the Father Spirit is pleased to meet with the humble suppliants of His grace.

Those who doubt this have to explain why the Chiang worship takes place at night. There is nothing then to be seen but the starry lights of Heaven. Absolute stillness reigns. Distraction is far removed. The whole thought is centred on the act of worship. Only a true seeker after God cares to make the climb. To him the darkness of the night is no deterrent, the risk of inclement weather no hindrance. The securing of the divine Presence is the great quest of his soul. Into his own moral darkness he wants the light of God to shine.

The Chiang have two names for Gcd: "Abba Chee" or "The Father Spirit" and "Ma-Be Chee" or "Heavenly spirit". The first is the more common, and beautifully expressive. God is the Father of all personality or spirits of men. How fundamental this is to all true religious belief it only takes an instant to realise, and



Ch'iang belts. Obverse. From the West China Union University Museum.



makes the Christian reflect again how Christ's teaching of God as the Heavenly Father is the beauty and the strength of Christianity. The Chiang idea of God makes a wonderful forerunner to that greater one, which Christ gave to men.

God, in his nature, is thought of as spotless in holiness or purity, and in his character as the righteous governor of the universe. He searcheth the hearts of men. He finds out if they are white or black, i.e. good or evil. To the repentant suppliant he extendeth sacrificial mercy; to the evil doer retribution according to his iniquity.

The White Stone and the altar provide tangible evidence of these conceptions. Since God is holy, the sinner may not approach him before he is ceremoniously cleansed. A sin-bearer is, therefore, necessary to remove his sin. On it falls the divine judgement. A spotless bullock, or lamb or fowl is the victim. When its blood has been shed the way is open for prayer and supplication.

The origin of this crucial ceremony no Chiang can give. It has been observed, all say, from time immemorial. They regard it as an all-important divine requirement. Aged priests, deep in the religious lore of their race, which is handed down from generation to generation, unanimously maintain this. The whole purpose of sacrifice, they say, is the removal of sin to secure the divine blessing. Its substitutionary character is never questioned but strenuously maintained. Without the shedding of blood there can be no remission of sin, and apart from that even the priests dare not presume to pray.

It is useless for any one to try to discount this belief of theirs. Some who, from prejudice, would fain read out of it this substitutionary meaning charge us with reading into it preconceived ideas of sacrifice taken from the Old Testament. But love of the truth must state exactly what the facts are. And it is not fiction but fact that the Chiang do thus interpret the meaning of their sacrifices. God, they believe, meets them at the altar, and no where else, because there sin is cleaned away.

That salvation by substitution happens to be an Old Testament and a New Testament doctrine only enhances the interest of the Christian in the Chiang ritual. Yet the interest or the wonder does not end here. There is something more wonderful still, so wonderful, that at first, one can hardly believe his ears when he is told of it. They solemnly assert that their sacrifices are only provisional: they are but the semblances of a supreme sacrifice yet to come. How can the critic account for this? Let who will question the asseveration, the proof again is overwhelming.

A divine agent is to come from Heaven to be The Great Sin-Bearer. When he appears the reality of their sacrifices will be accomplished. This future Sin-Bearer even now comes as an unseen Presence to the Grove to put through their petitions for

them. He is regarded as the Interpreter of all that takes place in the sacred grove and as The Agent who mediates between them and God.

At every sacrifice, accordingly, the priest has a sacred symbol of his presence, and this symbol is given a personal name. It is a roll of white paper in the form of an ancient book. Every priest guards his Roll with the most zealous care and regards it with the utmost veneration. No stranger is allowed to see it and no worshipper may even touch it. Neither will any priest tell an outsider of its existence. Without the presence of the Roll all sacrifice would be in vain. For it signifies the virtual Presence of the Heaven-Sent-One at the altar. Indeed he and the sacrifice are one.

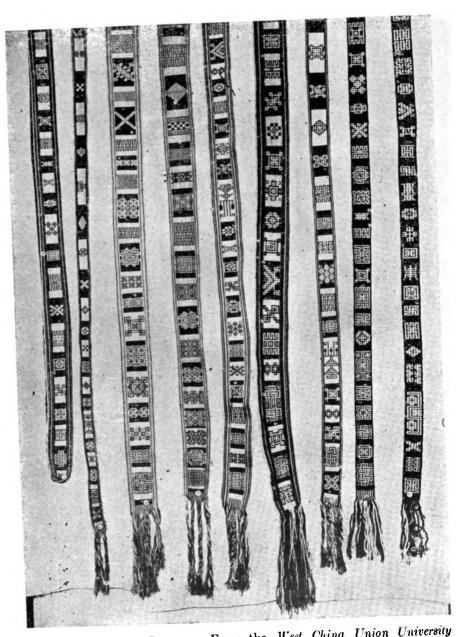
Originally the Chiang had their own scriptures, or writings. With the loss of the knowledge of letters, what was once a sacred roll of their law is now only a mere cylinder of white paper. But it preserves the form. It represents the reality. This explains their veneration for it. The roll denotes the spiritual nature of their offerings to the Father of spirits. They are offerings of righteousness consummated by the Heaven-Sent-One through his death for man's sin.

That he has to die for this purpose the priests take care to signify in a very unusual way: a small skull, or death's head, is inserted in the upper end of the sacred Roll. No one unitiated in the mysteries of the white religion would ever guess its meaning there. A second look has to be taken before indeed it is seen. The figure of death is embedded in the volume. This intimation is so plain that it is unmistakable. Even though it be surmised that the roll was originally without this tangible interpretation of its meaning, nevertheless the innovation reveals plainly the thought of the death of the Sin Bearer from Heaven as commonly held by all Chiang priests.

The writer has one of these rolls with the death's head in his possession. At the decease of an old priest who had it, a Christian Chiang secured it for us from his family.

The messianic message in the fortieth Psalm strikingly corresponds in thought to this age long aspiration of the Chiang, as evidenced in their Sacred Roll, and the mind of the man must be very dull that does not marvel at the closeness of the correspondence. "Sacrifice and offering", it says, thou hast no delight in; mine ears thou hast opened: burnt offering and sin offering hast thou not required. Then said I, Lo I am come; in the Roll of the book it is written of me; I delight to do thy will, O my God; yea, thy law is within my heart'. (R. V.)

The name of the divine Sin Bearer is also arresting: it is so like that of Jesus. The sound varies in different localities but the correspondence is close. In one place it is "Nee-Dsu", in a second: "Je-Dsu," in a third "Rhe-Dsu" and so on. This can be put



Ch'iang Belts. Reverse. From the West China Union University Museum.



down to coincidence, of course, but its designation can hardly be that. It is known as Abba Malah. Abba means Father: here, the Father in Heaven. Malah is not known other than as a name. They do not seem to be able to define or explain the term, But the pronunciation is very precise. The 'lah' is spoken with a definite click, so much so that it is virtually Malak; the Hebrew word for Angel. Have we not in this another strong indication of the Semitic oright of the Chiang religious beliefs?

In connection with this Sacred Roll and angel-Sin-Bearer or Redeemer the student of scripture inevitably recalls the many instances in the Old Testament of the mysterious angel-visitant appearing as God in human form to patriarchs, prophets and saints in times of stress and difficulty. By Isaiah he is called "the Angel of His Presence who saved them":" in His love and in His pity He redeemed them, and He bare them, and carried them all they days of old. (Isaiah, 62; 9). In Malachi, 3; 1, "He is called the Lord whom ye seek, even the messenger of the covenant whom ye delight in."

This delight of the Israelites for their Malak or Messenger of the covenant has a remarkable parallel in the fondness of the Chiang for their Abba Malah or Je-Dsu. They speak of Him in the possessive sense. The prefix of "ga-gee' goes with His name: "Ga-gee Je-Dsu" they say. The sentiment is that of the Christian hymn, "My Jesus I love thee, I know thou art mine."

Among Chiang Christians when the hymn "Jesus loves me" is sung the use of their own name "Je-Dsu" in place of the Chinese "Ye-Su" adds great zest to the singing. Every face then shines—every face is, as it were, a glistening white Stone.

At festival times the sacred roll is carried by the priest to the grove on a platter, where its base is embedded or planted in seed wheat. The emphasis is on the seed. The interpretation is not far to find when taken with the use to which this seed wheat is put. It is that death forms the prelude to life, a belief which the Chiang firmly hold. This will become plain as we proceed.

In some places the seed-wheat is carried separately to the grove, but at the grove the sacred roll is placed in it.

Where strict orthodoxy prevails there are three religious festivals in the year. The first occurs at their old New Year time, which falls on the first day of the tenth moon of the Chinese calendar. The second comes in the Summer and the third in the Autumn. But the dates vary according to the locality and even may be changed a little, as exigencies of weather and social conditions indicate.

In numerous places now only one religious festival is held in the year; in other places two. Uniformity has lapsed. Even in exact ritual procedure it is not found. One district has preserved customs and conceptions that another has let go or forgotten.

For private sacrifices there is naturally no set time. These

arise with the need or the occasion or the mood of the person offering. But in public or private worship there are extraordinary times when both are conducted on an extended or greater scale.

Public worship takes place in the sacred grove, and each village or set of villages has one of its own. Private worship begins on the house top with sacrifice and is continued in the home below.

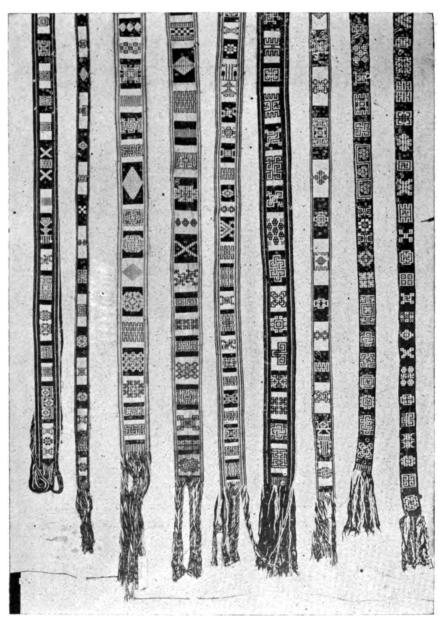
In all worship a priest invariably officiates. He is essential to its proper conduct. An ordinary individual dare not take the honour on himself of presenting the blood of sacrifice: that is the prerogative of the priest set apart for the purpose. He it is who superintends the whole ritual, checking error, enforcing decorum, explaining its necessity and significance, and leading in the prayers made after the sacrifice.

The office is generally handed down from father to son. One generation initiates another. When the pupil is proficient in the knowledge of the nature and significance of the various rites he will be called on to perform, he undergoes a careful ordination. But he must be able to get married, and the marriage ceremony may be the closing act in the ordination. Single men cannot act as priests, lest taint or auspicion should rest on any one performing this holy office.

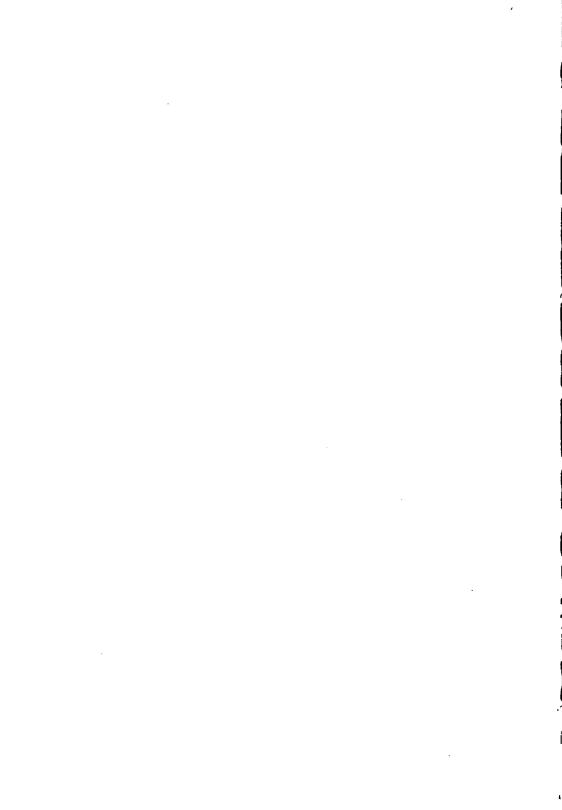
The ordination takes place in the grove. For the ceremony all the priests in the neighbourhood assemble. In company with any laity who desire to attend they form a procession that starts up the hillside as dusk draws on. Along the route fowls are sacrificed one after another to ensure a continuous dripping of blood from the start to the finish. Immediately the blood ceases to drip from one fowl it is thrown aside and another killed to maintain the cleansing of the path of the novitiates. It is a strange performance doubtless, only it sets forth in no uncertain way the emphasis that is laid on blood, and hence calculated to make men think of its necessary meaning even while it serves as a shock or challenge to man's aesthetic sense. Which same thing also the Jewish ritual continually did.

On the mountain the probationer bathes in a stream to rid himself of all bodily defilement and dresses himself in cleansed garments. A lamb on the altar is sacrificed in the usual way. The blood is sprinkled on the White Stone, the Sacred Tree, The Altar and all around. Oil or fat is put on the new priests head and the night-long chantings, prayers and drum beatings varied by intervals of rest proceed.

Next day each new priest has a lamb sacrificed on his housetop in front of the Whits Stone and Sacred Branch. At the conclusion of the accompanying prayers he may don the priestly garments and wear the priest's hat. He is now officially recognised as competent to undertake all sacerdotal duties connected with his office, whether in public or in private offerings.



Ch'iang belts. Reverse. From the West China Union University  ${\it Museum.}$ 



As a priest there is one thing he must not do: he must not change the intention of the sacrifice. Sacrifice may only be made for the one express and divinely ordained purpose of the remission of sin. It can not be turned aside to any other or made to any one but God. His duty is to maintain and enforce this original end, or otherwise he renders himself liable to the penalty of death.

We confess that the first time a priest voluntarily gave us this information we were surprised to the point of wonder, yea, and of admiration. For it revealed to us the intensity of their great central belief that their sacrifices of propitiation were not man-invented but God-born.

Everywhere the same insistence is made on the due order. Their chantings and prayers include an avowal of faithfulness in this respect. God is invoked to remember that the blood of the sacrifice is presented by his set command as made known to their fathers. Simultaneously the ancient priests are cited as witnesses that they have been stedfast to the rule of faith handed down by them.

Once at a High-place sacrifice, friction which arose among the worshippers led to certain irregularities and lack of reverence in the making of the offering, That same year, men noticed that death claimed the majority of the wanton offenders. This may have been a coincidence, of course, but the reason believed was because they sinned with a high hand.

But the surprise created by the staunchness of the Chiang to the faith of their fathers leads to a distinct shock when it is seen that the priests have allowed strange accretions and realistic amplifications to creep into parts of their ritual and profession which degrade its pristine purity. For instance the skull in the sacred roll obviously is an innovation to give it a dramatic presentation. The horned-skin cap of the priest is declared to have replaced by a plain shaped felt one with a circular brim. And a number of priests, not all, have copied some of the customs of the Chinese Worst of all, spiritism, in some parts with its customary admixture of real phenomenae and base trickery, has crept in. The investigator, even while he laments these excesses, has to take There may an note of them. All is not pure gold that glitters. alloy in it or it may be a base metal of the same colour. One has to distinguish and care is needed at every turn. Patience and caution are often necessary to disentangle the real from the simulation and what constitutes the old true-Chiang religion from its present day admixture of spurious elements.

It has to be remembered that during the reign of the Emperor Chien Long, A. D. 1736-1796 the Chiang suffered complete loss of political liberty. Then idolatry was forced on them at the point of the sword. Temples, never before seen on their mountain sides and plateaus, were wantonly built all through their territory. Since then a slow decadence has been noted in their worship. The

old zeal and fire have insensibly diminished. Even in the present generation we ourselves have watched this decline make definite progress. Old priests from whom we learnt much of what is here given have died off, and their successors, while performing the motions of the ritual, have not shown half the knowledge of its inner meaning their sires did. Their surroundings have not lent them the inspiration they required to maintain the old time brilliancy of their religion.

With regard to the spiritism adopted in some quarters, the young priests are alleged to pass through a trance at their initiation. A spirit then is supposed to possess them, taking complete possession for the time being of their faculties. After this possession is over they are physically limp or half-exhausted until their strength is regained.

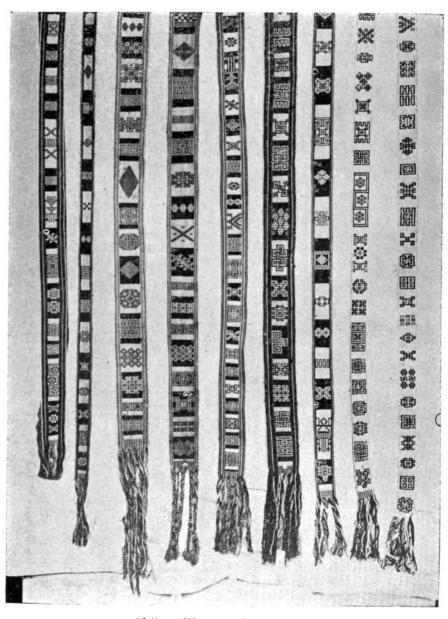
On the other hand, it is alleged that this is not always the case. The possession by the spirit is not real but simulated. An old priest instructs them how to feign the usual phenomena so that their reputation should not come behind others in having authority over occult powers.

Such as do have real experience with spirits profess to be able to call up these unseen personalities at will. By ways known to themselves they secure their aid or release from harmful influences. After a death, if the priest be up to his job, the spirit can lead back the departed soul under leash to his old home for a visit in a manner similar to the way shown in street processions of the actors of the Buddhist temple of hell.

In one district the priests carry, hung from their girdles, a bunch of ludicrously weird objects called the Te-sa-a-ga. Anything that is curious or strange enough or suggestive may find a place in the collection. Together they make a rare rattle for the ignorant and the gullible. You may see an eagle's bill, a cock's foot, a wild boar's tusk, a goat's horn, a bit of bone, a cymbal, deer's teeth, a Chinese charm cash, or a rare shell. Each object proclaims the exorcist powers of its possessor. With these by his side no one can doubt his ability to recall the soul in sickness, undo demoniac powers and save you in general from the evil eye.

Incidentally they prove a god-send to the sensationalist wiseacre. With these to shake in front of his audience, who dare doubt now that the Chiang are litholatrists, animists and demon worshippers! Seeing is believing? His case is proven. And he struts around as pleased with himself as the man who wears the lot at his belt.

He, however, who knows something of the genius of the beautiful old Chiang religion groans within himself at the sight of such things. How have the best become the worst? The Te-sa-a-ga, once pure as the morning light, has fallen from its high estate. We believe we hold the key to its primitive significance but must meanwhile wait before giving its solution. Sufficient here to say



Ch'iang Woven Belts, reverse.
From the West China Union University Museum.



that the presence of these oddities and occult claims does not lessen our admiration for the better class of priests who despise the use of such fraudulent practices in their profession. They refuse to stoop to these mountebank tricks and schemes for the sake of gain but trust to the all-merciful power of a benign God to meet the ills and needs of men. To them God is very real.

Few priests to-day wear a distinctive dress. There used to be priestly sacrificial garments; there is one in the West China Union University Museum, which we procured for it. This one shows a kind of back-plate ornament which is peculiar. Of its significance we remain so far in entire ignorance and until we find a clue there is no use making a guess at it. Nowadays priests mostly perform their sacrificial duties clad in the common white robe of the worshippers.

At the sacrifice in the grove only men are allowed to attend. Mixed worship is forbidden. Distance is no excuse, and nothing save bodily infirmity may deter the heads of households from being present. Worship is congregational and not to take part makes one a religious reprobate.

Elders or leaders of good repute are appointed in turns to see to all the necessary arrangements. It falls to them to select the rain or he-goat. This is done ten days ahead of time. It must be perfect in every part, body, legs and horns. And it must be white. If a wholly white animal cannot be found, a white cock is offered to atone for any spot or imperfection in colour. It is led home the day before and washed. To augment its cleansing it is next bathed in incense which is of cypress twigs. Then it is tethered in a clean place until wanted.

A new and unused rope is used to lead it to the altar. The rope, too, has to pass through the sanctifying fumes of the incense, and afterwards it may not be used for any profane purpose. A special honour rests on the person chosen to lead the victim to the grove. He is always some one reckoned worthy among his brethren. It falls to him to slay the sacrifice, and he receives an extra portion of the divided meat.

Three days beforehand the worshippers cleanse their bodies, wash their clothes and make themselves ready. No pungeant herbs such as garlic or onions may be eaten then or anything regarded as unclean. Even smoking is meantime prohibited. If possible, all go clothed in white. The very poor may wear dyed garments if they are cleansed and they have no other.

The road along which the victim is led to the grove only the worshippers may tread. No others that day may appear thereon, for that day it is sacred. Should any one inadvertently be met on it he must offer a special sacrifice to make amends for his trespass.

No outsiders are permitted to witness the New Year sacrifice. No Chiang even who are not participants are allowed near. The roads and approaches to the grove are carefully guarded against casual visitors or curious spying. None are supposed to approach

the holy place except sharers in the sacrificial offering.

The procession towards the grove begins about nine or ten o'clock at night. The white clad participants carry torches or lanterns. One carries the sacred roll reverently on a basin or platter of wheat seed. This, at least, is the custom in some parts. In others the wheat seed is taken separately in the priest's pouch to the grove and then poured around the sacred roll on the basin or platter. A halt is made before arrival to re-sanctify the lamb. Water is now, curiously, poured into or over its ears, over its back and legs as a sort of baptismal ceremony. Note is taken whether the animal, under the douching, shakes itself or not. If it does, that is taken as a sign of its fitness; if not, it is unhesitatingly rejected. Naturally a healthy lamb does shake itself and the ritual goes on. A third cleansing or sanctification of the lamb is gone through on its arrival at the grove.

The rule in every observance is, "holiness unto Abba Chee." Worshippers, vessels, utensils must be cleansed. The lamb requires to be perfect. God is a God of purity. Nothing evil or unclean can come before him. Heaven is a pure land. They who seek life there and the divine blessing here cannot obtain such apart from sacrificial purification. These repeated cleansings leading up to it all signify this ultimate purpose in the Chiang

worship.

A white banner with a miniature bow and arrow on it is raised on the altar. The white roll is placed directly before the White Stone. A large cake of unleavened bread and a jar of wine are placed beside it. The priest takes his station. A fire is lit in the centre of the open space. These preliminaries over, the ritual begins.

Its opening is announced by the discharge of a small three chambered gun, used only for this purpose. The gun originally was of brass. The writer has part of an ancient one in his

possession. Now they are made of iron.

The worshippers now kneel together as the priest begins his chants and prayers. He keeps time with a small drum. Je-Dsu, the angel overseer of all that is done, looks down to see that the hearts of those present are sincere. If not, the reputed punishment is liability to transfixion by a "brazen" arrow from heaven. A special awe, therefore, rests on every worshipper.

At the conclusion of the initatory chants a remarkable ceremony takes place. The priest or "Be-bo" burns incense of cypress twigs and enshrouds the White Stone in a cloud of fiery smoke. The background established, he, removes the rope from the lamb. The rope is wound around the vessel that to receive the blood. He and the elders now kneel and place their hands on the head of the victim. Afterwards all who have specially prepared themselves do the same.

After this solemn act of the transference of their sin to the lamb he recites an intercessory prayer. It begins with a triple ascription to God and goes on to invoke him to see and hear that they have assembled to offer sacrifice. He pleads that, offering of a lamb has been perpetuated from of old and the paying of vows from former generations. To offer sacrifice is not our invention, it was established in ancient times. This altar of the Most High opens the gate of heaven and the way of sacrifice. leads men to pay their yows. The leader of the lamb has brought it thither. One hundred and ninety-two pairs of white banners show forth the purity of the altar, and signify that God is pleased "O ye our ancient priests witness that our to accept the offering. offering is very pure, and that it is not our own instituting, but has been from of old. In paying our yows we have eaten nothing offensive for three days, nor gone to any unclean place. come to the sacred grove; we have placed in position the vessel for the blood; we have led the lamb thither; we have untied the rope and bound it around the basin; the arrow of the bow we now unloose; we slay the lamb on this floor; O God of heaven come down, come down as we offer it to thee. Thou Yather of Spirit come to our grove. If our garments were not clean we would not dare to wear them; if our shoes were not clean we would not dare to put them on; if our hats were not clean we would not dare to use them; if our backs were not clean we would not dare to bear the drum; if our hearts were not sincere we would not dare to pay these vows or pray these prayers. The grass is in the blood basin; the bread and wine we have brought to our God; Oh, regard the slayer of the lamb and the priest as without sin and undo the sin of all present. We sprinkle the blood to atone for our iniquities; O God accept our sacrifice."

The arrow is now removed from the bow on the White Banner and the lamb slain.

The original practice was to kill the lamb by a brazen arrow, this being the symbol of judgment. But now a knife, the property of the priest, is used. On the handle glitters a white stone or a white bone ornament. The priest hands the knife to the leader of the lamb. The lamb's head is drawn against some one's knee. Another grasps its legs firmly. One thrust of the knife is made and the blood flows into a basin. With a wisp of grass it is sprinkled on the altar with its bread and wine and through the cloud on the White Stone and White Banner and on all sides.

The White Banner with its arrow spent is immediately removed and inserted beside the White Stone because the White Stone is the emblem of the divine holiness.

The action denotes that this is an offering in righteousness. That which their Abba Chee desires is presented before Him. Their plea for mercy is the spent arrow. For in its discharge sin was judged. Since punishment has been meted out to sin, as evidenced

by the blood they sprinkle before him, they now ask for the remission of iniquity and transgression, which the goodness of God directed them to seek.

A paring from the hoof, the ears and the genital parts of the victim are burned on the altar, apparently as an act of consecration. The undivided horns are presented, but afterwards taken home. An ear is placed on the point of a staff and set up. The head, heart, liver and kidneys, with the flesh of the animal are consumed by fire.

The priest at sacrifices, other than the New Year sacrifice, which is the greatest of all, receives the shoulder or foreleg and breast and skin. Then the worshippers divide up the flesh among themselves. No stranger may eat of it for it is holy. The intestines are cleansed, minced, cooked and eaten with unleavened bread. It is their sacrament. Each worshipper drinks a small cup of wine.

The procedure varies somewhat according to locality. There is no exact uniformity found in the details of procedure. Each district has something of its own in the way of observance. But in the main the order follows a general line which is the same everywhere. Nowhere is sacrifice spoken of as the propitiation of Heaven or of God by man. It is necessary to draw attention to this point. The Chiang know nothing of this heathen doctrine. According to their belief God does not require to be placated. They regard sacrifice as divine and celebrate it as such. The celebration they call "the paying of vows," for this represents their concern in it. For in paying their vows they pledge themselves to God's will and service, which is what God requires of man. He provides the sacrifice; they accept it by vowing to him their fidelity.

The remarkable thing is that bands of these men in the stillness and darkness of midnight meet to worship Gcd in this way, and have done so for over two thousand years in West China. They believe they meet God here. He comes near to them in the person of their angel Je-Dsu. The light of the sacrificial fire, reflected in the glistening whiteness of their White Stone, symbolises His glory. It is their Shechinah. They cannot interpret this with the precision that we should wish, but they are under no two opinions that this sacrificial light represents to them the shining of the divine effugence.

Here we Christians feel that we stand with them on holy ground and would willingly remove the shoes from our feet. Very solemn and awful is the floor on which they thus worship. Who dare call this litholatry? The man who would is utterly devoid of soul—a hopeless Canaanite in heart and mind.

St. John in his vision of things in Heaven was carried away in spirit to a great and high mountain, where he was shown the holy Jerusalem descending out of Heaven from God and having the glory of God. Her light was like unto a stone most precious, even like a jasper stone, clear as crystal. The city had no need of

the light of the sun, neither of the moon to shine in it: for the glory of God did lighten it, and The Lamb, (the slain Lamb) is the light thereof. An intelligent Chiang Christian reading this passage in the 21st chapter of the Book of Revelation has no need of any one to interpret it to him, he knows it after the manner The spiritual conceptions, the similes, the aspirations are his own. He understands perfectly how the light of the glory of God and of the Lamb is like unto a Stone, most precious, clear as crystal.

In the book of Zechariah where Joshua, the high priest, hears that Jehovah will bring forth His Servant the Branch and lay the Stone before Joshua when the iniquity of the land shall be removed in one day, the references for the common reader are very difficult to understand. It is not so with the Chiang. The Branch and the Stone are well known to him on his house-top, and the removal of iniquity in connection with them a periodic occurrence. From Genesis to Revelation the ritual of the White Religion of the Chiang bristles with points of similarity and great mutual illumination.

Take for instance Genesis, 31; 54, where it is said that Jacob offered sacrifice upon the mount, and called his brethren to eat bread; and they did eat bread and tarried all night in the mount." What commentator can explain clearly the early usages that led him to do this? But we who have learnt how the Chiang sacrifice and tarry all night in the Mount have our difficulties cleared away. In their practices we see those of Genesis still preserved and observed. The Old Testament is a new book to us, comparatively, after we have sojourned for a time in the Chiang country. rocks, towers and fortresses give a vividness to many a Psalm and

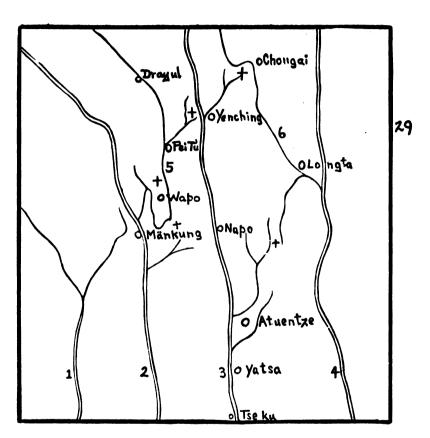
many a passage, that were previously half obscure to us.

Before the worshippers on the Mount separate the priest carefully divides the seed wheat between them, in which Je-Dsu had been planted in the likeness of death. The dividing in some parts is done by sowing. He scatters it over them like a sower when each one collects, what he can by lifting up a fold of his garment. The seed denotes the receiving of new life through death, i.e. by means of the sacrifice rendered to God. Each worshipper had taken to the grove four small white paper banners. Two of these are inserted in the fields and two taken home with the life seed, and preserved in a sacred receptacle called the Choh-Ch'u, which rests on a ledge in the corner of the main room of the house.

This sowing of seed takes place at marriages and at deaths. It means re-creation and restoration . . . life beyond the tomb. On the coffin a wooden bird typifies the flight of the soul to the Pure Land above. Heaven to them is the land of purity, therefore The bride, after her marriage, lays of gladness and brightness. aside her beautiful marriage attire, that she might wear it again when she passes into this land of purity and of brightness. Among a people whose religion is so much expressed in types and shadows the sentiment in this, as elsewhere, is very beautiful.

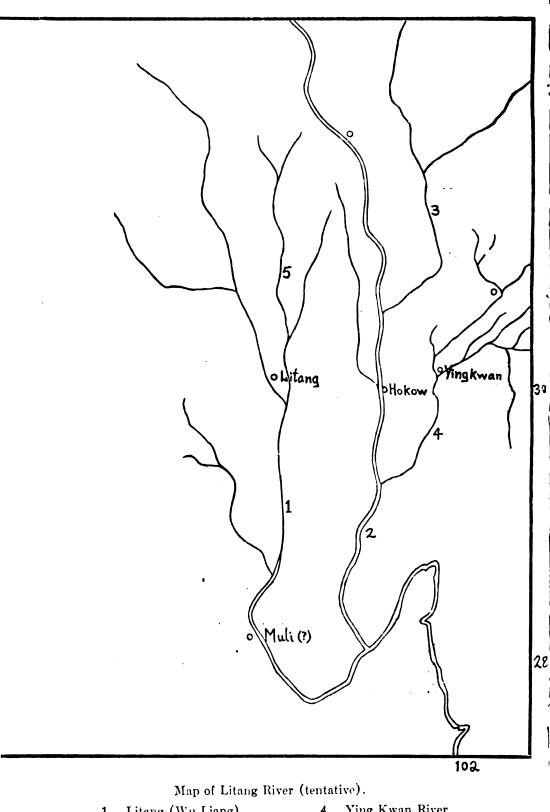
After the sacrifices, responsive singing, rejoicing and dancing are engaged in by all. The songs now sung are said to be very beautiful. For three days all work ceases. It is a period of festive joy before the Lord . . . a real Sabbath of rest and of gladness, pointing forward, of course, to its counterpart in the Heavens.

N. B.: - For turther information regarding Chiang religion and customs see the author's pamphlet, "The History, Customs and Religion of the Chiang"; also article in the 1923 volume of the Journal of The North China Branch of The Royal Asiatic Society, "The Religion of The Chiang".



Sketch map of the Wi Ch'u in relation to the Salwin, Mekong and Kin Sha Chiang. By J. H. Edgar.

- 1. Chui Tze Kiang
- 2. Salwan or Lutze Chiang
- 3. Mekong or Lantsang
- 4. Kin Sha Chiang
- 5. Wi Ch'u or O-i River
- 6. Long Ch'u



## TWO TIBETAN RIVERS: THE WI CH'U AND LI CH'U

## J. H. EDGAR

My choice of the following two rivers in Tibetan regions, the Wi Ch'u and the Li Ch'u, is explained by the fact that geographers have dealt unkindly with the former, and have, to a large extent, ignored the latter.

THE WI CH'U.—Between the Mekong and the Salwin Rivers, and with its debouchure just above the latitude 28 N., is a considerable river which has puzzled geographers both as regards its name and the direction of its course. The earliest map-makers made it flow into the Salwin and gave it the French looking name of Oui Ch'u. Then, later maps had it flowing through the Indian and Pacific Oceans' Divide and joining its waters with the fast flowing Mekong. Still later maps, copying older ones, sent it back to the Salwin, but with gridiron contortions of an amazing kind. But that is not all. Its name, even, will continue to puzzle geographers, because clever men who have studied it above Pe T'u are now suggesting Yu as a substitute for Wi. All the same, we. who are acquainted with the last fifty miles of its course affirm positively that it is a feeder of the Salwin and assure the public that anyone who cares to follow the stream from Pe T'u down towards Menkong will be in no doubt about the gridiron nature of the gorges. We also insist that it is locally known as the Wi Ch'u, But as the subject may engender controversy we trust our knowledge of Tibetan, and experience, may help towards a settlement. • any case we can say truthfully that all the Tibetans we have met, and who have worked for us, speak of the river as the Tsa Ch'u or Wi Ch'u. The former name simply means "the river of the Tsa Rung." The latter, as it stands, we imagine is "the river of Wa Yul or fox region.," and is no doubt connected with "Wa Po" the most important settlement in the district between Pe T'u and Menkong. The fact that Wa Po is so romantically situated in relation to the tortuous course of the river may have had some effect in making the name generally appreciated.

The above remarks refer primarily to the lower course of the river, but there is evidence to suggest that the name Wa Yul (Wa-ii) may be applied to the whole feature from near the sources to the debouchure. For instance, in the "T'u K'ao" we find the river

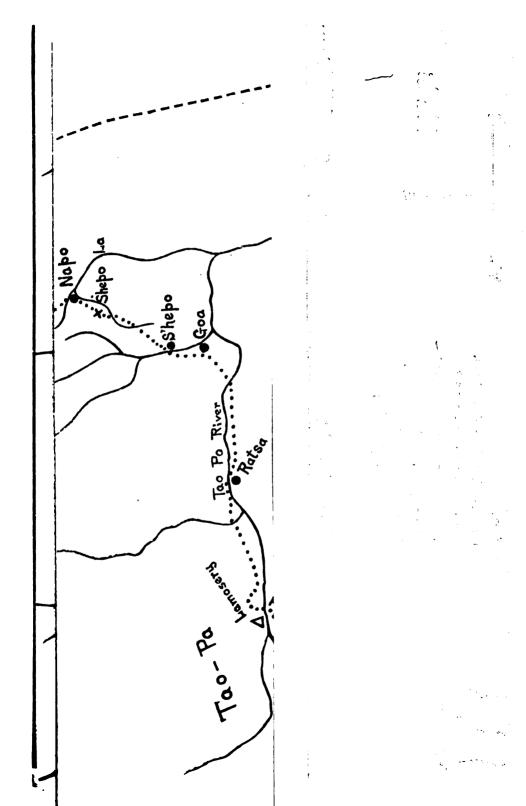
referred to in a note\*, and the Chinese characters employed to designate it are **羽**宜楚 (o-i-ts'u) a rather neat approximation to Wa-ii or Wa-i-ch'u. (Wa Yul or Wa-i-the i being a sign of the possessive case). The "ts'u" represents the Tibetan ch'u the word for river or water. In this note both the source and junction with the Salwin are mentioned. The length is stated to be 700 li or 200 miles.

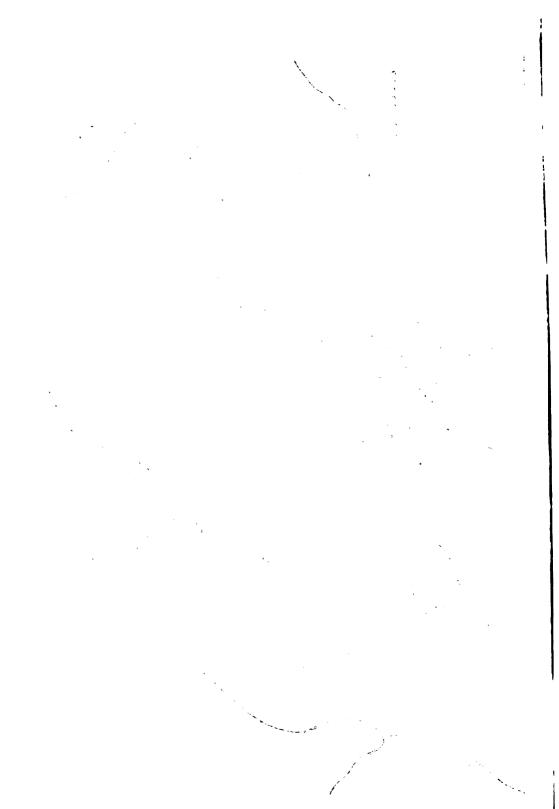
The river was known to the French missionaries, and it is owing to their surveys that the Wa Yul or Wa-i became the Oui Ch'u of the maps of a generation ago. In the China Inland Mission map of 1905 the Chinese Oi Chiu is given; but in the "Atlas" of 1908 the correct course of the former becomes hopelessly at sea as regards the river's course, and an unwarranted alternative as regards the name is given. As mentioned before, recent travellers, while as a rule, perfectly correct as regards the course and debouchure. are complicating the problem by giving Yii as an improvement on the former Oui, Oi, and Wa'i (Wi). One noted scientist and author while writing it Wi seems to accept  $Y\ddot{u}$  as the correct designation, and explains it by the last syllable in Dra Yul, (Ta Yul) the name of a monastery some days' journey upstream. But it seems probable that the Yul (Yii) in this case is simply the Tibetan word for "country" or "region" and, therefore, should be ruled out as a proper name. So with the Tibetan, Chinese, French, and some English all in agreement, it seems a pity to burden this interesting tributary with a name that is probably confused with another, entirely different. The main road from Likiang to Lhasa joins the Wi Ch'u valley above the great bends, and follows it past Pe T'u and Dra Yul to the dividing ranges. Tsong K'a Pa the reformer of Lamaism, probably followed this route as did Madame David Neal, a devout pilgrim 500 years later.

2. The Litang River, Li Ch'u, or Wu Lland Ho.—This river, rising probably in the Kanze Ranges, from its source to the junction with the Ya Lung must be at least 400 English miles. In the North where it meanders through plains 14,00 feet above the occan, the Western branch at least, is well known to the former Batang missionaries. It has, also, been crossed by many Europeans near and below the headquarters of the Mu Li Lama-Prince. No information regarding the lower reaches where, with a proud sweep, it circles round to join the even more erratic Ya Lung, is current; and its course between Mu Li and Li Hwa (Litang) is probably

<sup>\*</sup>The "Hai Tsang T'u K'ao's" note on the O-i-ch'u or Wi River is as follows:-

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entirely unknown to Europeans. The distance between these two centres may be less than i50 miles, and although the drop from Li Hwa bridge must be 6000 feet, we are informed by Chinese travellers that "the river flows with an even steady current through hills of no great size." In 1902 the writer and J. R. Muir were about 29 N. Latitude and 20 or 30 miles East of the 100th meridian. From this point we went North to Litang, and, consequently, must have been more or less parallel to the Li Ch'u, and from three to four thousand feet above it, for more than one hundred miles.\* But although we were never very far away from our quest and probably at one place saw its gorges, our first actual glimpse was obtained near the crossing at Shompa, 30 to 40 miles below the Litang bridge. The Li Ch'u, however, was known to Europeans 200 years ago. Du Halde's History of China, 3rd edition, 1741, when discussing certain "Mong Fan," henchmen of Wu San Kwei, informs us that the region North of Likiang and "between the five rivers of Kin Cha Kiang and Vou Leang Ho" was given to these alien lamaists for political reasons. The latter feature, the Wu Liang, or Limitless River, is the Li Ch'u.

In the China Inland map of 1905 the Li Ch'u, as the Wu Liang Ho, enters the Yangtse almost opposite Li Kiangfu; but in the Atlas three years later, the true junction is given slightly West of the 102nd meridian and near the 28th parallel of North latitude. Another problem closely associated with the Li Ch'u is the debouchure of the Hor Ch'u. The above Atlas confusing the latter with the Li Ch'u, gives it a mileage it does not posses, and suspects a junction with the "Taopa" river. The Li Ch'u and the Hor Ch'u may become one according to other first class maps but Muir in his unpublished survey of 1907 is inclined to join it

with the Ya Lung about 50 miles below Hokou.

In conclusion, it is not too much to say that the Li Ch'u offers excellent opportunities for an important reconnaissance: (1) There is the region North of Litang, especially the more Eastern branch, to be explored; (2) the great expanse between the Litang plain and Mu Li is yet unsurveyed; (3) the strange bends which distinguish both the Li and Ya Lung rivers may provide interesting material for the geologist; and finally, (4) the course of the Hor Ch'u should be more accurately delineated than it is at present.

<sup>\*</sup>According to Broomhall's map we reached a point 20 miles above Mu Li.

## PYGMIES ON THE SALWIN

#### J. H. EDGAR

In the "Hsi Tsang T'u K'ao" we have a note regarding an ethnic group approximately about 28 North Latitude and 98 East Longitude. The people are said to be cannibals, and live in a sequestered region of wild mountains and furious rivers. A line from Assam to Batang bounds it on the North, and another from Chiang K'a to T'eng Yüeh is the Eastern limit. A translation of

the ethnographic part of the note is as follows:

"To the South of the Tibetan land several thousand li is the ancient kingdom of K'epu Chan. The natives, wild and of low mentality, have not been influenced by the Buddhist religion. Their lips are divided in many sections and they tattoo themselves with striking colours. They have a great craving for salt; but neither plow nor sow, and either dwell in caves or roost in trees. Skins of animals clothe them in winter, and these are replaced with leaves in the summer. They collect noxious insects and hunt wild animals for food. These people (the Mo Yü of the Chinese narrative) are called Lo Chia Chi by the Tibetans. It is (or was?) a custom of the Lhasa Government to forward criminals to the Salwin where they are finally delivered to the savages, who apportion them out to be eaten."

These Mo Yü cannibals are mentioned several times in the T'u K'ao, and it may be possible to identify them with the Mirya of Tibetan historians. But it is more likely that the Chinese term Lo Chia Chi is the Lo K'a K'ra of the Lamaists. If so we may suspect a people known as the Akas or some division of the Mishmis or related ethnic group.

During 1911 the writer on two occasions met individuals or groups of a pygmy people, which he suspects were related to the alleged "cannibals." The first, a woman probably less than four feet in height, was in company with a Chinese soldier returning from Litang. The man had been campaigning in the Tsarung region, and by some means had become the possessor of the little creature; but her status then, whether wife, mascot, or "monkey pet," was not revealed. Later, in the same year, when at Menkong (29 N. and 98 E.) within the region specified, the same traveller, once again, had an opportunity to study the Salwin pygmics. Then he was able to measure a few individuals and found that 4 ft. 6 in. for the men, and 4 ft. 2 in. for the women, was a fair approximation. The main group was in slavery, which may not only explain their presence in Menkong but why every duty was

performed not as individuals, but as a company. One girl, also in slavery, but as an individual in a different family, was a beautiful creature, pleasantly tattooed.

Menkong before 1911 was an important slave market where men and women were bought and sold openly. The Pygmy country was significantly called Tsong Yul, or "the Trading. Country."

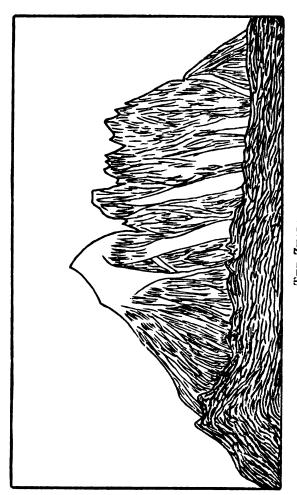
## THE NAMES ZHARA OR CHARA

#### J. H. EDGAR

The Zhara peak is about 50 miles distant in a northerly direction from Tatsienlu. Although a very arresting feature with eternal snow, an altitude claimed by experts to be slightly less than 20,000 feet hints how wide of the mark Tibetan and other estimates are 1.

Its name, both as regards pronunciation and meaning, have puzzled travellers for decades; and while not by any means claiming finality my experiences and appraisals may be worth recording.

The name is generally pronounced "Zha Ra:" so distinctly that we are inclined to the opinion that it is not a local rendering of some "ch" sound by "sh;" a change that is by no means uncommon in certain districts of Khams. If Zha Ra is the true version we may suspect it is a non-Tibetan name from the contiguous "Rong s'ke2," the meaning of which is yet unknown. But if Zha Ra is really Lhasa Tibetan, the words may mean the "Fence of Helmets." As the dominating peak is not unlike a ceremonial hat of the lamas such a name would be at least appropriate. But there seems another explanation which many will accept without difficulty. Some weeks ago my yak driver, a lama who had resided six years in Lhasa, undoubtedly called the peak "Chag Ra Ri" or the "Iron Fence Mountain." After a vain attempt to modify his opinion, some long forgotten facts suddenly presented themselves. instance; the native ruler residing in Tatsienlu was the Marquis of Chag La, But this, no doubt, is the Chinese rendering of L'Chags Ra, defined by Tibetan dictionaries as a "principality in Khams." But it is almost certain that the L'Chags Ra was formerly applied to a semi-sacred mountain, and later gave its name to an important region, and was thought to extend its personality<sup>4</sup> to a long line of rulers whose duty it was to serve two masters. The mountain is dogmatically affirmed by all Tibetans to be higher than the Gong Kar<sup>6</sup>, a bias that might be explained partly by an association in times past with gods and kings. But, after all, the original name may have been something resembling "Zha Ra" in the adjacent "Rong s'ke" which was later modified by invading Tibetans to "L'Changs Ra" and assumed to represent a trinity composed of mountain, state and ruler.



THE ZHARA

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#### Notes: -

- 1. Kreitner's party gave 7,800 metres.
- 2. "Rong skad," the language of the Rong.
- 3. So Sarat Chandra Das.
- 4. A totemic suggestion.
- 5. It is 5000 feet lower. Heim's figures are:

Gong Kar 7,700 metres; Zha Ka 5930 metres, or approximately 25,025 feet and 19,273 feet, respectively. Almost north of the village of Trampa (Tombadu) there is another much less impressive snow clad peak, locally known as Zha Me, probably "The Not Zha."

# PREHISTORIC REMAINS IN HSI-KANG OR EASTERN TIBET

## J. H. EDGAR.

Half a century ago cup-like depressions on his father's farm in the South of New Zealand, associated with neolithic remains, conjured up in the mind of the writer visions of the Maori and the Maorori hunting in the last feeding grounds of the Moa. Then when in Australia, more than a decade later, vague hints suggested a culture there predating the present aborigines; and long afterwards, revelling in the camps of extinct Tasmanians, he saw in imagination, cultural remains being unearthed in Kerguelen and Graham Land. Fortunately, in China and Tibet, similar day dreams have had all the resemblances of reality. And it is to give cultural anthropologists an opportunity to supplement this claim

that the present article has been written.

The attention of those interested will first be directed to the localities in Hsi K'ang where up to the present pre-or protohistoric artifacts have been found. The Tibetan land resembles a dried up sea on the top of a high mountain mass. The great rims that surrounded it are still apparent, and the countless archipelagos exist as corroded peneplains and higher ranges with an occasional snow-clad peak. On the Eastern and Southern sides eight or nine rivers have found a way through the barriers, but in the North, an area equal to half of the Tibetan continent, consists of two inland basins without ocean connections. To what extent, if at all, these vast regions were inhabited in former ages, is at present unknown; but on the slopes of the Eastern rim, and on hills and in valleys of the crater-like depression (in Hsikang between 7000 and 15,000 feet) there are cultural remains of an unknown variety of Homo sapiens, or some species of the Hominidae. While there is abundant evidence that the Pre-Tibetan moved about extensively, and lost or rejected missiles rather freely, it has, also, not been difficult to locate some of his important centres. These have been mapped (see map at end of this volume), and it is hoped that the supplementary description will prove of value to ethnographers of the future. At present Tatsienlu may be considered the most suitable base, as from it roads radiate out in all directions, and in all probability each one will, in time, furnish quotas of value.

(1) The first to be considered is Cheto, about ten miles from Tatsienlu on the main Batang road. (2) From this village we

proceed up the Maoya gulch, one of the highways to Yunnan, and after 15 to 20 miles stiff travelling arrive at a col-like feature called the Zhu Ri Ha K'a, 14,850 feet, which may yet prove of great interest to specialists. (3) Still continuing along the Yunnan road, we cross the high Lanyi Bar, and 15 miles from the Zhu Ri col, arrive at another site, Ri Mo Chong, 14,400 feet, where prehistoric man has obligingly left us crude specimens of his craft. Ignoring possibilities still farther south, we return to Cheto, and proceed along the Batang road for 36 miles, arrive at the settlement of Ying Kwan Chiai. This is a very important centre. material has been found locally, as well as in the valleys to the South and near the roads towards the north and northwest, Artifacts have also been found in the Nyi Ma valley and in others joining the Li Ch'u above the fort. (5) Our next move is to return to Tatsienlu and concern ourselves with the "Northern Caravan" Ten miles beyond the capital is an imperfectly investigated site with remains of different kinds, some of which seem to continue for 20 miles farther North. (6) Forty miles above Tatsienlu the road bifurcates: one branch reaching the Kin Ch'wan and the other Taofu, a centre about 100 miles inland. A prehistoric camp here has furnished many excellent specimens of early man's industry. (7) Still 20 miles north at Ch'a Ch'ie, G. T. Bowles and the writer during July 1931 collected from a rich camp astride the main road; and (8) at Shara T'ang, 30 miles from Taofu were delighted to find many crude artifacts embedded in the lowest depths of loess. (9) From the Kin Ch'wan-Taofu bifurcation a journey of 65 miles takes us to Tanpa on the Takin river. A "camp" here at 7000 feet provides crude material fashioned from quartz, granite, and mica-schist. (10) Then passing Mowkung, and proceeding north we arrive at the loess cliffs of Fupien, 75 miles from Tanpa, where is found the last known site in the Hsiao Kin basin. bare outline of site localities should enable collectors to satisfy their curiosity and at the same time add considerably to the list given. Neither the expense, nor the physical exertion demanded, should interfere with the success of an effective expedition.

II. Some remarks regarding the geological environment may usefully supplement what has already been written. Just how much glacial ages have modified the Tibetan topography is not a question the writer is qualified to answer. But in the regions discussed we find U-shaped valleys of many kinds; deep V gorges merging at times into gloomy box canyons; and, occasionally a combination of the two where a deep V has been corroded in the bed of a gargantuan U. So far the former valleys have revealed nothing, hence, we expect to find our sites and camps in the latter or what remains of them after ages of pounding by the forces of nature.

(1) The Cheto site is on a terrace like feature formed by the debris of an acient glacier. The artifacts buried long ago, have been exposed by water action and the hoofs of countless animals

which travel over the Lhasa road. They are small as a rule, and the workmanship of the crudest kind. Large, inartistic weapons and implements, however, are found in the gutters and cuttings worn out by animals in the Maoya gulch. There is no evidence to prove that they belong to the same cultural stage as those of the Cheto terrace, but all the same their owners may have inhabited terraces when the mountain torrent was flowing at a much higher level.

(2) The Zhu Ri Ha K'a site, about 14,850 feet, suggests a culture similar to that of the Cheto terrace. This small col has been for ages a highway to the upper Ti Ru meadows. If Bowles' discovery of striae on the rocks below is confirmed later, this valley was gouged out by a formidable glacier, and we may choose between two alternatives: The col was either the bed of a mountain stream cut in two by the glacier, or it was formed by an ice tongue protruding into the adjacent Maoya gulch. But of paramount importance to the prehistorian is "when did savage man—before, during, or after the glacier—choose this out of the way locality as a camping ground?" We can only affirm with some certainty that he must have been very near the bottom rung of the cultural ladder, while the pressure of enemies or the abundance of game may explain why.

(3) The site on the Yü Lung Hsi side of the La Nyi Bar is also of great interest. At about 14,500 feet artifacts begin to appear. But ten miles or so from the summit we come to a small detatched hill 100 feet above the stream and on the right bank, but on the left one of what had been its bed in a former age. Here again, on banks and in gutters, are to be found material showing intelligent purpose and of a type similar to that of the Zhu Ri Ha

K'a.

(4) Ying Kwan Chiai is at the junction of two plains: although nothing has been found here in situ, primitive artifacts and cores have been collected under rather peculiar circumstances. The Tibetans here are farmers and whole heartedly endeavour to rid the land of stones. This material is usually piled up in heaps, and much of it later finds its way to walls, mani ramparts, pavements, and the foundations of local "castles." Ruins abound everywhere, and from them, the heaps, and material delved from old fen land areas, many fine artifacts have been taken. Implements have been seen also in the walls of farm houses; but similar types are so abundant that there has been on necessity to begin negotiations for the sale of the premises. Moreover, such anomalies suggest that something will be left for the enthusiasts of A.D. 3000! The conditions which characterize Ying Kwan Chiai obtain to, and below At'e; northwest towards the Ka Zhi La; and, to some extent, in the Nyi Ma, Ho Kow, and Lha Gang valleys.

(5) The site referred to on the North Caravan route is on a moraine like feature and provides scrapers, knives, and hand-axes. The former two exist in hard materials disturbed to some extent

by man, caravans, and forces of nature; and the latter in drains, ravines and cuttings formed by the same agents. The rock in some cases is not local, and although nothing of interest has been found below the site, the ancient hunters seem to have been active towards the North. Indeed, the material of material of one hand-axe only exists in the Hsiao Kin valley, 120 miles away.

(6) The Taofu-Sha Ra T'ang sites are pre-eminently interesing to the prehistorian. Around Taofu artifacts are found in drains and cuttings running through the alluvial fan, and on flats of a loess-like composition affected by aeolian erosion. Scrapers, saws, hand-axes and knives, however, are most abundant at Ch'a Ch'ie in old river deposits and at many places in the ten or twelve miles between this point and the Catholic Mission settlement at Sha Ra T'ang. The Ch'a Ch'ie site seems to have been a well populated and imporant concentration of pre-or prato-historic Tibetans.

(7) About two miles below the Catholic Mission station on the left bank of the Shi Ch'u, artifacts of a heavy type and cores are plentiful in the water mains and to a less extent in the lower portions of the loess cliffs, where bones and other material of interest to the prehistorian also exist. This weird land with its hills rent by earthquakes, and the plain corroded by an erratic river, will not only furnish the cultural anthropologist with abundant material, but might more readily than any other regions supply

data for approximating its place in human history.

The Tanpa site will suggest solutions of another kind. The topography is of the gorge and canyon type. material is mostly friable mica schist, and the weapons are heavy and very crude. But shale, quartz, granite, and perhaps diorite and falsite have also been used. In this region traditions of savage, hardly human beings, are so common that we are inclined to ask for much more evidence before assigning to what has been found a prehistoric antiquity. The "camp" however, has many points of interest. Immediately West of Tanpa near where the Yak river joins the Takin, there is an ugly promontory, in the cliffs of which are some natural caves. Below is a small beach, and nearer Tanpa a limited flat suitable for agriculture. rocks, and facing a sunny, wind protected hollow, are cavities and platforms which would afford warmth and shelter for imperfectly clad men. Indeed; this site includes not only protection from the elements, but also an advantage over enemies, good fishing grounds, abundance of game and fuel, quartz for producing fire, add fields for grain and vegetables.

(9) Implements typically different from those in Tanpa are found in the main valley of the Hsiao Kin, but Fupien, 30 miles above Mowkung, may be suggested as the best centre for an investigation of this basin. As loess-like banks and terraces are very numerous near this official centre it was hoped that much material would be obtained in situ. But although many artifacts were found

on the roads above and below, nothing apart from a few remains of great interest, if genuine, was actually taken the cliff faces. This was a disappointment; but it may mean that the ancient camp is not yet discovered, or the remains have been removed by water or landslides. Sha Ra T'ang was similarly disappointing until the lowest 'cliffs' were examined.

A few ethnographical notes of general character will supplement what has been said already. The material used varies considerably. We have mentioned quartz, schist, shale and granite, and may add to the list basalt, chert, crystal, diorite, felsite, gneiss, sandstone, phonolite, and perhaps meteoritic iron. artifacts include hand axes, clubs, saws, scrapers, knives, hammers, awls, pot stands, and boomerang missiles of unknown use. One or finds', if not road metal may be spear heads. Except in a few cases, where another explanation seems possible, we have no doubt about indications of intelligent purpose. We admit that neither Chinese nor Tibetans suspect the true origin of the "old stones," but certain neolithic types are supposed to have had a quasi-divine origin. It is not surprising, also, that European critics often refer to glacier pressure, earth movements, water action, hoofs of animals, heat and cold, and many other unintelligent agents. It is easy to add to the above lists. For instance, the rode side farmers often erect post and rail fences to protect their crops from erratic animals. The posts are usually made firm by pounding water worn material into the holes. The result is that markings and fractures are produced that might deceive the over-enthusiastic As Tibet is partly a land of stone masons and extensive ruins the adventitious trimming may, also, add to the confusion. But a mass of rock exploded from its layer in a quarry differs in many respects from the scultured figure. It is well to remember that stone age man, according to his needs, developed definitely observed technique. He chose his material carfully, and worked with an expert touch. At one time he provides for a grip, at another time for attaching a haft. In this way this way the work of the scientist is made easy. But it may be argued that some missiles are too heavy for ordinary use or even for ceremonial purposes. If such are not cores, as in the case of the stone boomerangs," they may have performed the humble duty of pot supports as is usual in nomad camps today. Heavy and variously shaped lumps of stone, with a central depression, are hammers for driving in tent pegs. Fires of another age have produced fragments of many kinds which were trimmed into serviceable artifacts. quartz remains, the refuse of men seeking fire, answer the same purpose after similar treatment. And it may yet appear that the double service service of this beautiful material may account for its quasi apotheosis in many regions.

The question of antiquity must be settled by specialists. But even an amateur is justified in proclaiming the "boomerangs" and

"hammers" as modern. The belief in the Kin Ch'wan of savage men in an age not very remote, and the survival of customs connected with the tradition must not be ignored. The famous mountain of Dmur'do may furnish confirmatory evidence, because d'mu r'do or d'mu r'god is the name of the true aborigines of Tibet. Demons and red faced savages also, dispute this claim with the d' mur r'god. Indeed, a female of the prehistoric rock demons and a quasi divine anthropold are regarded as the progenitors of ethnic groups related to the present Tibetans. With the "cannibals of the Salwin' in view, it would be of interest to find out if the "King of the Pygmies" who submitted to one of China's legendary rulers is not something more than a myth. Again, what about the palaeolithic groups which predated the civilization of Fu Hsi? On the other hand, although the absence of floral or faunal remains handicaps the scientist, the use of iron from very early times, and the fact that no Chinese, unless influenced by European theories, is inclined to associate the best artifacts with men, and rarely with demons or gods, surely suggests a respectable antiquity for many types at least. Some light may in time be thrown on this perplexing problem by an examination of debris from glaciers and earth movements; but our hope is in the loess and the men who will find a key to open its closed archives.

## A NOTE ON THE CHARACTERS 吐番

#### J. H. EDGAR

These characters are thought by Baber and many other good authorities to be the origin of our "Tibet," the Mongolian "Tubed," and the T'u pe t'eh of the T'u K'ao. If so, the sound is found in both "Bod Yul" and "Bod Mi" which denote Tibet and Tibetan

respectively.

(I) The first we hear of the name is about 600 A.D. when an ethnic group of Ch'iang affinities took T'uh Fah¹ as a dynastic title, which in time was erroneously changed to T'u Fan². As the "f'' is not a Tibetan letter now, nor was at the time the change was made, we assume both the "Fah'' and "Fan'' had a sound different from the present Chinese one: perhaps a "p'' with a strong aspirate. This seems a reasonable assumption, when we remember that Fuh and Fan, for Buddha and Brahama respectively, are really unquestionable evidence of an important linguistic principle in operation. In some words, however, "pusa" for instance, which is the Sanscrit Bodhisattwa, the original sound is retained. This is true, also, in the case of the Kiating rafts, which are known in other regions as "fah tzu" 沒子, here retain the more ancient sound of "p'a tzu."

(II) A study of reliable dictionaries will show that "po" was a common alternative for "fan" 霍³, a sound which agrees better

with the original "Fah."

- (III) If my memory is not at fault Bretschneider reads "T'u Fan" as "T'u Po" and Rockhill has no doubt about the matter. For instance in the "Life of Buddha" he says (pgs. 215, 216); "Tibet first became known to the Chinese as Thu-fan, or as it ought to be read in this case Thupo (Tib. Thub-phod) . . . . The Mongolian "T'u Bed" reproduces the Tibetan pronunciation very closely." Rockhill also quotes Baber as writing "Perhaps Ten Pen is the source of our Tibet." As the value of "fan" (originally "fah") requires an examination of phonetics before 600 A.D., the local Chinese, unless trained in the evolution of their language, are not in a position to help materially in the discussion. For instance, we can imagine the surprise of many if told that "Fuh" and "Fan" were originally Buddha and Brahma, respectively.
  - 1. 禿髮
  - 2. 語訛謂之吐蕃
  - 3. 番 or 蕃

# A NOTE ON THE USE OF STONE IMPLEMENTS IN CHINA

In Darwin's "Descent of Man", second edition, page 224, when speaking of flint tools, the distinguished author says: "There is *indirect* evidence of their former use by the Chinese and ancient Jews." (Italics are mine, J.H.E..

The above note was received from Mr. J. H. Edgar, and, in view of the recent finds of ancient stone implements in many parts of China, is an interesting sidelight on the fund of information that the great naturalist acquired in his search for information on early man. Mr. Edgar's discoveries in Hsikang and Dr. Graham's excavations at Hanchow, Szechwan, are both described elsewhere in this volume. The Editor.

## THE REVOLUTION IN SZECHWAN, 1911-1912

### S. C. YANG.

Before I write of the revolution proper I wish to outline some of the causes of the revolution against the Manchu Dynasty.

Not long before the end of the dynasty all the provinces of China sent people's representatives to the capital at Peking requesting the central government to establish a constitution. The reply was that the people's knowlege was insufficient and that it would be necessary to experiment over a term of nine years and gradually evolve a constitution. The Emperor's edict was widely proclaimed but the people were very much dissatisfied at the slowness with which the government attempted any reforms. At this time each province had a provincial assembly. The representatives of the people in these assemblies thought much the same way. They then elected representative leaders from all the provinces to unite in Peking in demanding the speedy promulgation of a constitution, and the establishment of a people's parliament. The Emperor denied the request and again suggested a nine year delay.

All the representatives, except the Manchurian delegation, returned to their homes; the latter were very much dissatisfied and refused to leave. The emperor ordered the commander of the infantry to appoint a military escort to take the delegation back to Manchuria. At the same time the Emperor issued orders that each provincial governor should discourage these attempts, and oppose all such measures, and if necessary imprison all agitators. These orders were issued in November, 1910.

When the students of the Szechwan schools heard of this edict of the Emperor's they became very angry and went on strike. They paraded the streets and lectured the people on the backwardness of China, the reactionary policy of the Emperor, and demanded constitutional government at once, prophesying that if it did not come, China would perish. The tide of public opinion rose high and manifested itself in excited mass meetings. As the schools were under the control of the educational bureau, the commissioner of education, Chao Chi-Ling **EPR**, summoned representatives of the schools together. The commissioner lectured them on the advisability of their strike. Among other things he said, "Why do you say China has no constitution? This will encourage the Japanese to occupy Manchuria. However, Manchuria is such a long distance from here that such actions would have no relation to Szechwan students?"



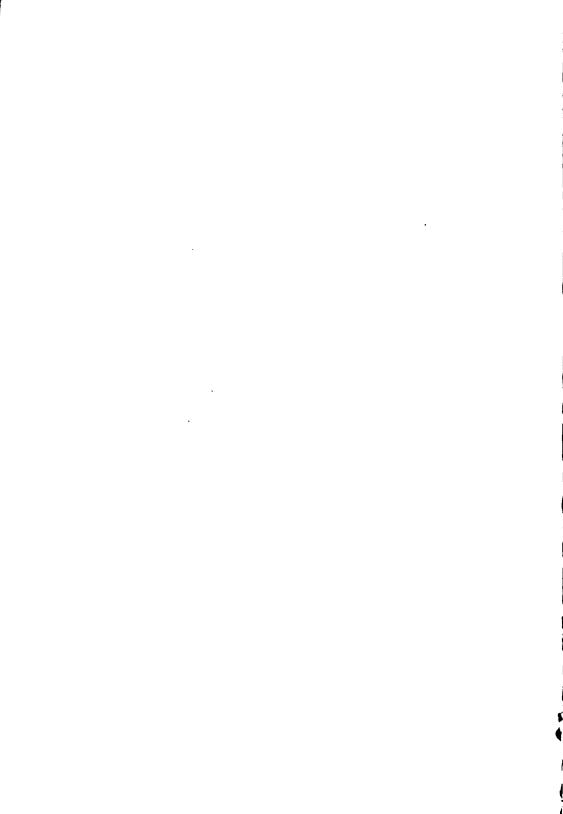
Tartar General Chao Er-Hsun, Chao Er-Feng and Other Leading Szectwan Officials.

Front row. 1. Commissioner of Education, Fong Ho-Chai. 4. Szechwan Viceroy, Chao Er-Hsuin. 5. Szechwan Tartar General, Chao Har-Pu. 6. The Commissioner of the Border, Chao Er-Feng. 8. Bishop of Catholic Church, Musgr. Donaud. Second row. 1.

French Interpreter, Chang Wen-Pin. Assistant Bishop, J. Tontvianne.

German Consul, Mr. Weiss.

French Consul, Mr. Wilden.



This greatly angered the students who were fast developing a patriotic sense of Chinese unity. Their opposition was prolonged and vocal. Among the student representatives was one named Liu Tung Mis. He was a graduate student who had returned from Japan and was engaged as an interpreter of the Japanese language in Chengtu. He took the platform and said, "A new constitution is the only method to save China at this time. If China does not develope a constitutional government, it is certain that China will perish at the hands of the Japanese. Accordingly, if the government refuses to act, then the students must themselves take action". The students then telegraphed to the Peking Government demanding a new constitution immediately. Liu Tung was most heartly supported by the students and elected by them as their chief.

Liu Tung was a native of Hupeh province, as was S. C. Yang, and they taught in the same school, the Kiating Middle School of Chengtu, established by Wu Tien-Cheng 吳天成. In the evening Liu Tung visited S. C. Yang's house to report that he had the messages ready to submit to Peking but lacked funds for sending them. Accordingly S. C. Yang accompanied him to the telegraph

office and arranged for the messages to be transmitted.

At this time the governor of Szechwan was Chao Er-Hsün He saw the tide of public opinion rapidly rising and heard of the appointment of Liu Tung as chief student representative. He planned to stem the movement by arresting Liu Tung. Liu heard of this and planned to escape from Chengtu and was aided in this plan by S. C. Yang and K. P. Yang who found two hundred tacls for this purpose. Police spies had been thrown about the house of Liu Tung to watch his movements. This made it very difficult to approach the house unseen, but S. C. Yang managed to personally convey the money to Liu and promised him further support. The next day Liu eluded the spies and escaped from the city. When the governor heard this he issued a proclamation that Liu Tung must be captured, and at the same time communicated with other cities notifying them of Liu's escape and of the governor's severe attitude toward the new movement. This student demonstration was one of the first indications of the coming revolution.

Now let us look at some of the conditions that obtained generally in China at this time. Prior to this time, many revolutionary movements had been detected in other parts of China, and many princes, ministers and governors had been assassinated by revol-

utionaries.

In Kwangtung a revolutionist named Si Chin-Ru 史堅如 planned to murder the governor, Teh Shao 懷壽. He waited long for the opportunity to carry out his plan but was constantly delayed. Accordingly, outside the governor's yamen he commenced secretly to dig a tunnel under the wall right to the governor's bedroom. This he succeeded in doing placed some bombs. While the governor slept the bombs exploded with terrific impact demolishing the

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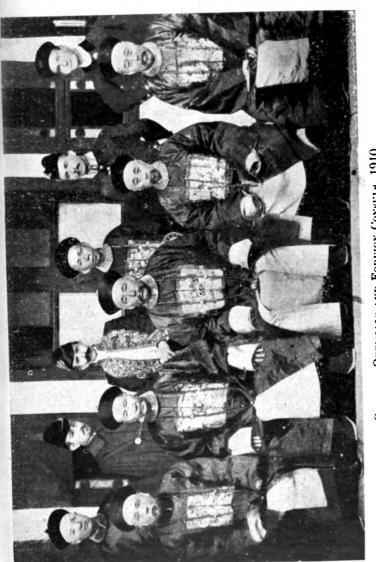
Governor's room but the intended victim escaped without serious injury. This was the beginning of revolutionary activities against the Manchu Dynasty.

In August 1905 the Manchu Government at Peking appointed five ministers to go abroad to investigate the constitutions of Western countries, namely, Tsai tseh 數深, Twan Fang 論方, Tai Hung Tze 戴鴻慈, Hsü Tze-Chang 徐世昌 and Shao Yin 紹美. After farewells at the emperor's palace they proceeded to the Ch'ien Men 前門 railway station. On the way a revolutionary named Wu Yueh 吳樾, threw a bomb into the train. Shao Yin was injured in the head; the rest of the party escaped injury. However the bomber himself was killed in the explosion. The walls of the station were covered with blood and marks of the explosion. This man was the vanguard of the organized Revolutionary Assassination Party.

In May 1907 a man named Hsii Hsi-Ling 徐錦麟, chief of the "Kwang Fu" club 光復會, became a police official. He was a returned student from Germany, skilled in German Police methods, and an ardent revolutionist. On his return to China T'ao Chen-Chang 陶成章 assisted him to the position of police commissioner of the province of Anhui 安徽. Here at this time was a Provincial Police Training School of which he also became vice president. On May 26, the school had graduation exercises for a class of police. Hsü Hsi-Ling invited the governor, Ngen Ming 恩銘, and other high officials with the prefect. At the time of the ceremony Hsü Hsi-Ling appeared suddenly in front of the governor and said "To-day the revolution will begin". Immediately many bomb explosions took place but the governor was not injured. Seeing this Hsü Hsi-Ling took two pistols from his long boots and shot the governor killing him instantly. Hsü Hsi-Ling was taken by the guard and later killed. The treasurer of the yamen Fung Hsu 遮原 at once reported this occurrence to Peking and it came to the ears of the Empress Dowager when she was on vacation. She was much perturbed at the news and hurriedly returned to the palace. The princes and ministers were seriously disturbed over the affair not knowing how far it might go.

Another revolutionary, Wang Chao-Ming 汪兆銘 in January 1910, planned to kill the regent-father of Hsuang Tung 宣統. He lived outside the palace and dailytravelled back and forth from his residence to the palace. On the way there is a bridge called, Teh Shan Chiao 依勝橋, which the regent daily crossed. Wang Chao Ming placed a bomb under the bridge, and one day as the regent was crossing the bomb was touched off; the bridge was destroyed, but the regent in his carriage escaped serious injury. This occurrence was very disquieting to the ministers and royal house.

One, Wen Sen-Ts'ai 温生才, in March 1911, made an attempt on the life of the governor of Kwangtung, Fu Chi 孚琦, the Tartar



7

CHENGTU OFFICIALS AND FOREIGN CONSULS, 1910

1. Salt Tao-tai, Hwang.
2. Chief Commender of Military troops, Ma.
3. Tatar-General, Chao.

Front row:

Szechwan Viceroy, Chao.
 Provincial Treasury, Hsü.
 Second row: 1. French Interpretor, Chang.
 German Consul.

M. Bons d'Anty, French Consul-General.
 Provincial Judge, Chao.
 Mr. H. H. Fox, H.B.M. Consul-General.

Mr. Wilden, Vice-Consul, French.

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governor. One day outside the south gate there was an aerial demonstration. The managers invited the Tartar governor to be present at the ceremonies. After the exhibition was over the governor was on his way back to his yamen when Wen Sen-Tsai attacked and killed him.

In the same city another revolutionary Hu Han-Ming 胡蓮民 planned an attack on officials. One day he disguised himself as a foreign consul, dressed in foreign clothes, with a four-bearer chair and a host of attendants, who were really revolutionists, well disguised and heavily armed, and visited the governor Tsang Min-Chi 張鳴獎. The governor came out to receive him and while still a considerable distance off the party commenced firing. The governor at once detecting treachery and being young in years, and quick in action, hastily beat a retreat and leaped the wall into the neighboring yamen of the Navy Department, whose chief was General Li Chuan 李祁 and sought his assistance. General Li Chuan came quickly into action with his powerful escort and surrounded the attacking revolutionary party. A short but fierce and decisive battle was fought when the revolutionaries were defeated and left seventy-two of their number killed. Later these seventy-two men were buried in the same tomb just outside the city on an eminence called the "Yellow Flower Mountain" 黃花岡. Annually these 'Seventytwo Heroes of the Revolution' are now remembered in special anniversary ceremonies.

Although so many revolutionaries were killed they continued their operations and seriously embarassed the officials. When the new governor, Feng Sen [1] was appointed by Peking to succeed the martyred governor of Kwangtung, the officials of the city would not come out to receive him. Instead of the welcoming officials long lines of heavily armed soldiers stood to attention at the point of arrival. Restrictions were so severe that revolutionary activities were considerably curtailed. However, a revolutionary disguised himself as a workman and climbed a telegraph pole overlooking the yamen with the appearance of doing repair work. He waited in this position until Feng Sen [1] appeared and dropped a powerful bomb killing the governor instantly, badly dismembering him, and wrecking many houses in the vicinity.

Later the revolutionaries of Kwangtung planned to destroy General Li Chuan 李進 who had killed the "Seventy-two heroes" in the Navy Yamen. One day when the General came out of the South gate, two revolutionaries, Ling Kwan Si 林冠茲, and Tsen Chin-yoh 陳敬岳 threw bombs at his chair. The chair was damaged but Li Chuan fortunately escaped death; badly scared he jumped a wall and escaped.

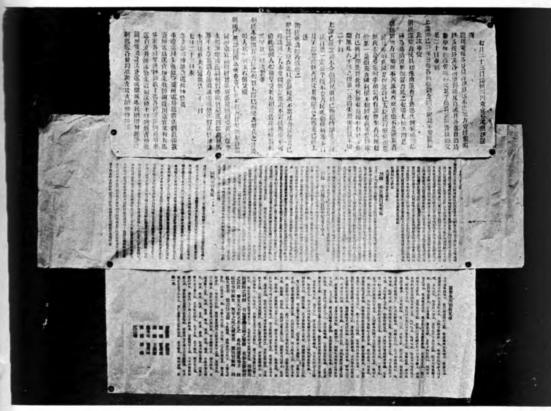
In Peking, two revolutionaries, Chang Hsien P'ei 漫先培 and Yang Yu Tsang 楊禹昌, attacked with bombs Yuan Shi Kai 袁世凱 (Yuan Lieh Ko 袁內閣, a Councillor) but did not kill him. Pen Chia Chen 彭家珍 killed an important officer of the Manchus

named Liang Peh 良药. Both Yang Yu Tsang and Pen Chia Dzen were Szechwanese, the former of Tsechow and the latter of Chengtu.

Now let us discuss the reasons for the revolutionary outbreak The basic reason was the Szechwan railroad plan. At that time the Peking government planned to build two roads, one from Kwangtung to Hankow called the Yo-Han 奧溴, and one from Chengtu to Hankow called the Chwan-Han Railroad III. Peking promised that the people of the provinces concerned should have the privilege of building their own railroads. little was done for several years, when the Minister of Communications, Sen Suan Huai 盛宜懷, in Peking sent a memorial to the Emperor requesting that these railroad franchises be returned to the Peking Government, and the people concerned indeninified for the losses they had sustained. This was carefully considered by the emperor, but a prompt reply was not given. Tzeh, minister of finance for the Manchu government, favored the proposal of Sen Suan-huai and also sent a petition to the emperor, supporting the same position, i.e. that the franchises should be returned to the Peking Government because the railroads concerned were trunk lines and should be under government control. The Emperor agreed to the proposition, but the people of Kwangtung, Hunan, Hopel and Szechwan united in strong opposition. The Szechwan people were more aggressive than the others and the other provinces gave them hearty support.

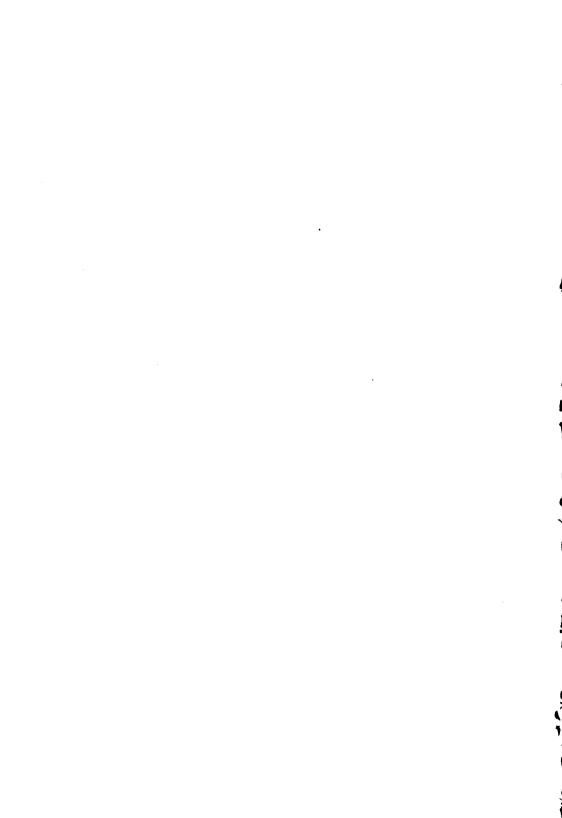
There were many reasons for this strenuous opposition. Since 1864 when the Tai Ping Rebellion 太平天國 was finished, China had had a measure of peace. Twenty years later Dr. Sen Wen 孫文 in Kwangtung began his revolutionary propaganda and organized a party called "Shin Chong Hue," 與中會 progressive China party. In 1898 highly placed officers in the Peking government brought forward sane measures for the reform of the government, but the Manchus violently opposed these measures, fearing revolution. In the same year six Han Lin scholars were executed by the orders of the Government because of their reform schemes. Yuin Luh 祭祿 a Manchu minister was the cause of these attacks. Two friends of the unfortunate six Han-Lin victims, and also friends of the emperor, Kang Yu-Wei 康有為 and Liang Chi Chao 梁啓超 escaped through the aid of Japanese friends in Peking named Yamatu 山田, Omura 小村 and Noguchi 野口. three friendly Japanese assisted them to escape to Japan where they became famous for their revolutionary propaganda. were known as first-class scholars and ardent reformers.

After 1894, following the Chino-Japanese war, these two reformers published a newspaper and explained that China was in a dangerous position with its very corrupt government, and they urged many reforms. Many Chinese people now understood that these two men were very practical political revolutionaries. On arrival in Japan they continued their program of reform. Kwang



THE CENTRAL GOVERNMENT EDICT PEKING.

- 1. Stating the people should not misunderstand the meaning of Government taking over the Railway franchise. (23rd. July, 1911.)
- 2. On 23rd. July, 1911, another edict saying the people should be quiet and not be misled by the rumour. The Government has appointed Chen Chun-Hsuen (岑春噴) to be the viceroy of Szechwan instead of Chao. A letter from Chen Chun-Hsuen. A letter from Szechwanese who resided in Peking.
- 3. A statement from eleven leading people of the Railway League stating the reason why they strike. It is for saving the country from partition by the powers, a patriotic idea, hoping the people will quiet down.



Yu-wei appointed Tang Ts'ai-sung 唐才常 to return to Shanghai and by means of organizing a Japanese language school 東文學社, established a party named "The Chinese Independent party" 中國獨立協會. Another famous scholar, from Chekiang 浙江 named Chang Tai Yen 章太炎, also gave great assistance to the new movement. He had studied in Japan for many years and had written many books favoring the revolution. His purpose was different to Kang and Liang inasmuch as he stressed nationalism for the Chinese people. He was a Han (Chinese) and not a Manchu. Both Kang and Liang were quite prepared that the Emperor should be retained if needed reforms could be effected.

Chang Tai Yen returned to Shanghai and joined with other notable scholars, such as Ts'ai Yuan-pei 禁元時, and Cheo Yung 粼容, Wu Chin-hen 吳敬恒, Huang Djin Yang 黃中央. established a party called "Ai Kuo Shae" or the patriotic party 愛國社. Later the Kwangsi 廣西 governor, Wei Kwang Tao 魏光 震, heard of this and suppressed the movement scattering the members. One of the party Tsai Yuan-pei alone organized another party, Tung Chi Hue 同志會 the United Purpose Party. Later this was united with Hsii Hsi Lin's 徐錦麟 party, named the "Fu Ku Hue" 復古會, "Return to Ancient." After the union a new name was given the party, "Kwang Fu Hue" 光復會 or "Return to Glory." Still another party came into existence established by Hwang Hsin 黃旗 in 1904 in Hunan 湖南, called "Hwa Hsin Hue" 華麗會, or "Rise of China Society." However, this party was soon broken up and Hwang Hsin escaped to Japan. There he joined with two others, Song Chiao Jen 朱致仁 and Tsen Chia-hua 程家樺。 These gathered about them revolutionaries from other provinces of China, who were in Japan, and established the new party, "Keh Ming Tung Min hue" 革命同盟含, Revolutionary League' which brought all the other parties together.

From this we get the "Keh Ming Tang", or "The Revolut-

ionary Party.

From this time onward all revolutionaries were know as "Keh Ming Tang" and when captured by the government were speedily executed. They were very courageous in spite of deadly opposition and planned to start in Kiangsi, 江西, Hunan 湖南, Kwangtung 廣東, Kwangsi 廣西, Fukien 福建, and Shanghai. 上海. They planned many coups but always failed. When they heard of the Szechwan Railroad trouble they were very pleased and planned to respond with help as soon as a favorable opportunity revealed itself.

During the four months that the railroad struggle was on in Szechwan the Manchu Dynasty was overthrown. What was the reason? There is a proverb "In the Empire of China when the provinces are experiencing unrest Szechwan is always the first to start things". "Often when other provinces have secured peace Szechwan will continue with unrest and discontent". In regard

to the revolution the achievements of Dr. Sen Wen (孫文) were first recognized in Szechwan, which province is credited with beginning the revolution.

Now we can describe more carefully the course of the Revolution of 1911 based on the movement in Szechwan.

The Szechwan movement had its beginning as we have noticed in the Railroad question. The Peking Government had promised the Szechwanese that they might raise their own funds and manage the construction of their part of the new railroad. The funds were raised through land taxes by which land-owners all became bondholders in the new railroad scheme. In this way Szechwan raised more than thirty millions dollar. Later, the managers proved themselves capable of vast mismanagement and incapability. Large sums of money disappeared through the failure of several The chief director was Si Dien Chang 施興意, who was, therefore, more responsible than others. The bond-holders attempted to find out the cause of losses but failed, and an audit of the books and accounts was frustrated. The building of the railway had gone very slowly. They began at Ichang 宜昌 where a station was built, a few miles of rail laid and some rolling stock purchased. Great sums of money were paid out for these minor operations which consumed much time.

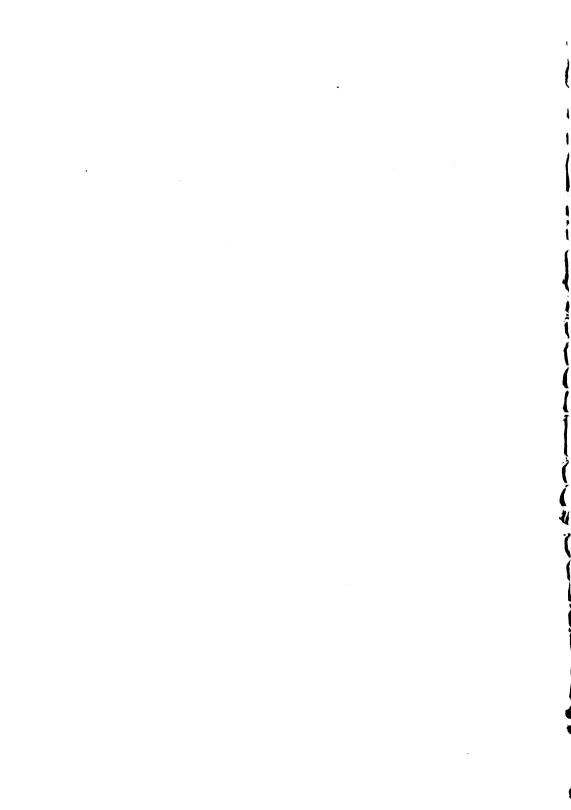
In November 1910, Sen Suan Huai 盛宜懷 was made Minister of Communications in Peking. In January of the following year he planned to take back for the Government the provincial railway franchises and build the railways under government management. To finance this scheme he planned to borrow ten million dollars from the Chen Chin Ying Hang 正金银行, a Japanese bank. censor, Si Chang Hsin 石長信 had made the recommendation that the government take back the railway franchises; accordingly Sen Suan Huai based his policy on the recommendation of the censor. In his petition he stressed the position that all main trunk railroads should be in the hands of the central government, and that the officials and gentry of the provinces concerned should build the local branches. In the case of railway bond-holders they would be indemnified for monies already paid out by the government in With the threat to take the provincial railway franchise the central government promised dire punishment to all who disobeved. The Emperor agreed to the petition and gave orders to the Szechwan governor to publish the proclamation accordingly and ordered them to cease the levy of land taxes. Previously this the government had appointed a new superintendent of the Szechwan Railway and asked for an audit of the funds raised and expended. When this was done the government promised to make a gradual return of funds to all bond-holders.

The Szechwan Hunan people all opposed the new proclamation. At that time each province had its own assembly. In May the Hunan assembly sent a petition to the provincial governor,



PROCLAMATION OF NEW SZECHWAN OFFICIALS.

The Division of Organization of the Government



Yang Wen Ting (楊文鵬), asking him to memorialize the central government, conveying the fact that they had the ability to manage their own railway program and that they were violently opposed to the borrowing of Japanese money for the venture. The Szechwan assembly appointed their vice-president of assembly, Hsiao Hsiang (蘆細), as their representative to Peking to make complaint in person. They united with Hunan, Hupeh, and their provincial officers in Peking to organize a United Railway Party to demand of the central government that it withdraw the proclamation and

continue with the former provincial railway policy.

In Szechwan the movement found leadership in the "New Constitution Party", and also organized the "Tung Chih Hue", 圖志會, or "The Railway League". This party established their head-quarters in Chengtu, and rapidly spread to all other cities and districts and became extremely powerful. Representative of the party went everywhere lecturing the people about the shortcomings of the central government. They party also elected several representatives to go to Peking to petition the government personally, on behalf of the people, for the return of the original provincial railway policy. These were Liu Sen Yuan 劉擎元, Ran Huan 阮峭, Li Kung Yang 李孔揚, and Li Kwang Fan 攀農 芽. After the representatives left, the people continued their propaganda, and much excitement prevailed. On the first of July the merchants closed their shops and the students quit school. Railroad League sent speakers everywhere and stirred up the people, and great disturbances were created. In Chengtu the people were afraid of the military oppression, and shop-keepers put up tablets of the Emperor Kwang Hsü 光緒 over their shops, to show their loyalty. On each side of the tablets were six character expressions—on one side, "Public Administration must be understood by the People", on the other, "The Railway Franchise was Pledged to Provincial Officials''. Elevated platforms were erected at street intersections where the emperor's tablet was publicly displayed. These platforms were arranged at such a height as compelled officials to alight from their high sedan chairs in order The people derived great satisfaction from thus hindering the progress of officials to their offices, and compelling them to dismount and walk. There were many opportunities to press and advance the new revolutionary movement.

Chao Er Hsuin 超爾獎 the former governor, had petitioned the central government to reduce some of the power of the Tartar governor. So when the trouble arose the Tartar governor had very few troops. When Chao Er Hsuin left Chengtu he handed his office over to acting governor, Wan Ren Wen 王人文, who was provincial treasurer, The brother, Chao Er Feng 超爾豐 was the real governor but was operating in "Chuan Pien" 用意, on the Tibetan border. Wang Ren Wen was a scholar and quite unable to cope with the difficult situation. Expecting only a short tenur-

of office, and not wishing to offend the people, he followed a policy of vacillation and procrastination, awaiting Chao Er Feng's return from the Border, Chao Er Feng returned to Chengtu, the situation was well out of hand. He was called "Chao Tu-fu" 治居戶, "Chao the Butcher", so people were afraid of him. At first he was friendly, but later assumed a harder attitude. Then the people addressed a petition to him demanding that Peking withdraw the proclamation about the railway. He refused, stating that Li Chieh Suin 李穆動 had been appointed by the Peking government to be the commissioner of the railway. This angered the people and the different classes went on strike by way of protest.

Then the railway bond-holders held a conference in the railway offices in Chengtu. The Chairman was Yuan Kai 顏槽, and the Vice Chairmen was Chang Lan 張瀾。 These two leaders were requested to lend their assistance. On July third, they called in some public men, among whom were, Yuin Liang 尹良 provincial treasurer, Cheo Shan Peh 周養培 provincial judge, Su Yueh 徐樾 police commissioner, Fu Si Fen 胡扁苏 commissioner of industry, Yu Dsong Tung 子宗潼 prefect of Chengtu; also the two Magistrates of Chengtu and Hwa Yang 學陽. These all attended the conference and discussed with the bond-holders the whole matter. The chairman, Yuan Kai, and vice-chairman, Chang Lan, then made a statement, "The Szechwan people at this time have risen to take up their right on the railway question from wholly patriotic They have not broken the law, nor have they opposed the government without reason. They are only seeking their rights. Even at this time, when houses of business and schools have been closed for three days, good order has been maintained. We all desire you officials to return to Chao Er Feng and request him to help the people and forward a petition to Peking requesting the Peking Government to discharge the railway commissioner Li Chieh Suin, and permit the people of Szechwan to manage their own railway scheme as formerly promised by the government". The officials promised to report and discuss the matter fully with Chao Er Feng.

At the same time the Railway League held a meeting and made a declaration to the effect, that, "At this time the new movement aims only at political action, and we urge that members protect the lives and property of foreigners, and we urge that foreigners do not misinterpret the movement". Sen Tsong Yuan 沈宗元, and S. C. Yang 楊少荃 translated this into English, and sent copies to the foreign consuls and to the foreign community.

Now conditions gradually became worse. On the 9th of July a newspaper, Chi Chih, 啓智, published a carteon showing that many parties were now established to protect the branches of the Railway League. The Mohammedans established twenty others were established at Ran Fang Kai 染后街, Yü Lung Kai 玉龍街, Shansi Kai 澳西街, Yu Chin Chiao 餘慶橋, Tseo Ma Kai 走場街,



REVOLUTION CARTOONS

Upper Right: The Emperor Kwang Hsü.
Upper Left: The Minister of Communications, Sun Hsun-Hwai.
Lower Right: Railway League officials, carrying the railway.

• • Ran Dien Kai 染靛街, Chuin Pin Kai 君平街, Li Hwa Kai 梨花街, Ding Tze Kai 丁字街, and even in the Manchu city they had one, 'Bah Chi''八旗, Eight Flags.

Outside the city at Shi Fang **什邡**, Sintu 新都 and many other places Railway Leagues branches were formed on the same date. So from this time dates the determination of the Szechwan people

to relentlessly carry out their purpose.

Chao Er Feng telegraphed to Peking requesting the return of the provincial railway franchise to Szechwan. The reply wire brought only a negative answer. The Peking Government expressed disgust at Chao Er Feng's inability to suppress this movement. The Peking Government appointed a Manchu, Dwan Fang 大, once Governor of Chihli 資業 province, to be superintendent of the Yo-Han and Chwan-Han 學達用漢 railways. Dwan Fang was ordered by Peking to take a brigade of troops to Szechwan to carry out these orders. When Dwan Fang arrived in Chungking he remained there, while conditions in Chengtu became steadily worse. Not only Chengtu, but now cities far and wide were well organized. In Chengtu practically every street had a branch of the Railway League. Even some branches were established by officials who united with the people in this patriotic movement.

When Chao Er Feng saw this he became angry and published large proclamations urging the people to stop the movement, otherwise, "bad and good will be destroyed". The people were now impervious to such warnings, and only paid attention to the notices of the Railway League. Later Luchow 瀘州, Tzechow 賢州, Kiating 嘉定 and Chungking 重慶 followed the same course and closed shops and schools. By the 15th of July, Chao Er Feng had sent troops to many places, and also to the provincial assembly to find the leaders of the movement. Here he took the president, Pu Tien Chuin 滯殿後, and vice-president, Lo Len Troops also visited the conference of bond-holders, and took the chairman, Yen Kai 顏僧, and vice-chairman, Chang Lan 强澜, together with other leaders, Ten Shao Ko 鄧孝可, Fu Yuin 胡蟆, Chiang San Sen **江乘三**, Yeh Pin Chen 葉秉誠, Wang Min Shin 王銘新, Pen Lan Sen 必關村 and others, and incarcerated them in the governor's yamen. Chao Er Feng called all the higher officers to his yamen and held an examination or trial on the whole question. The gentry held that they were representatives of the people, and had done nothing wrong. Two of them, Yeh Pin Chen and Ten Shao Ko gave expression to extremely radical views. angered Chao Er Feng who wished to execute them at once. tunately the Tartar governor, Yu Kuen 終昆, Tien Chen Pang 田振邦 the Ti-du 提督 or Chief of the army, and Yuin Liang 尹良 the treasurer, came at once to the yamen, and defending the two men placated Chao Er Feng. Then an old Hanlin scholar, Wu Song Sen 伍幾生, came forward and strove to protect the two men from injury. Chao Er Feng weakened but still held the nine

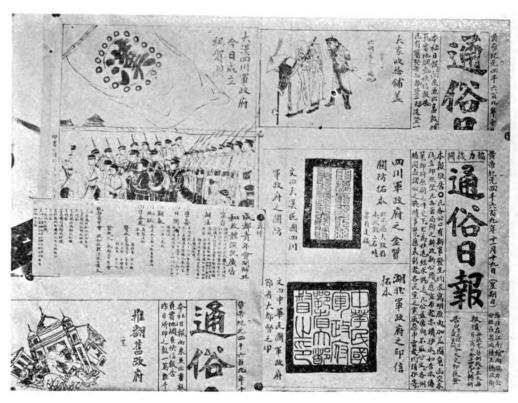
gentry prisoners, and urged that they be kept in close confinement. Then Chao Er Feng instructed his troops to suppress and scatter

all the branches of the Railway League.

The Chengtu people were afraid that the gentry prisoners would be executed, and thousands of people, young and old, including many young girls, went to Chao Er Feng's vamen to intercede for them. Many carried yellow tablets of the Emperor Kwang Hsü in their hands to express levalty to the reigning house; others carried incense and went to the yamen to weep and wail at the doors, and could not be persuaded to leave. Chao Er Feng urged them to leave, stating that it was not their business. They refused to be dismissed and pled for Yen Kai, Lo Len, and Pu Ten Chuin as their beloved leaders. Chao could do nothing. One of his officers, Tien Sen Kue 田徽婆 head of the military department, opened fire on the people. Several tens were killed and many wounded. the people would not leave. Then Tien ordered his troops to use Then Yu Chang Tung 子宗潼 the Chengtu prefect, who was weeping, walked up to the mouth of the cannon and prevented it being fired. The Railway League societies outside Chengtu heard of these happenings, and arming themselves marched on the capital.

When these people arrived in Chengtu they first cut the telegraph wires destroying contact with the outside world, and then closed all the government tax stations. They steopped all official dispatches and arrested the couriers. The friends of the captive gentry wrote about their troubles on pieces of boards and sought help by floating these down the river to go where they would, using sixteen words, thus ''Please look, officials force people to rebel; governor is first rebel, making people suffer''. These boards were found and the news spread rapidly through the country, causing a great inflow of volunteers and militia to Chengtu. Collision took place with Chao Er Feng's troops in many places, notably Shi Pu 摩浦, Lung Ho Chang 龍和場, Lung Chuan Yi 龍泉驛, and other places, many hundreds of people being killed. Whenever Chao Er Feng's troops were defeated there was great rejoicing among the populace.

The Chengtu city gates were closed. Chao Er Feng and the city government had no plan to manage the city. All the offices were unble to function. Then Chao Er Feng succeeded in getting a courier to another city where a wire was dispatched to Peking reporting the occurrences. The Peking Government thought of the former governor, Chen Tsuen Chan 本籍語, who was governor at the time of the Boxer Rebellion and who had defeated the Boxers. Knowing that he was popular in Szechwan they appointed him to return and take over the provincial governorship from Chao Er Feng. When Chen Tsuen Shan read the letter of appointment he did two things. First, he sent a petition to Peking telling the Government the mest important things they should do for Szechwan.



## Revolutionary Cartoons.

Upper, right: Manchu official leaving.

Right, centre: Seal of the new Szechwan Government. Lower, right: Seal of the new Wuchang Government.

Upper, left: The flag of the revolutionary Han Government.

Left, centre: Ceremonial proceedings at the declaration of the new republican government.

Left, centre: The Chengtu Y.M.C.A. announcement of a lecture on constitutional government.

Lower left: Down with the old government!



Second, he wrote Szechwan. In his petition to the government, he said two questions stood out as fundamental. First, the Peking Government had withdrawn the railway tranchise from the gentry of Kwangtung, Hunan, Hupeh and Szechwan. The treatment had not been equal; Szechwan being remote had been treated harshly and unfairly. Now the government should deal leniently with The part of a government was to help and not oppress Szechwan. the people. The government should explain this to the people and explain that the reason why they tried to borrow outside money was to lighten the burdens of the people. Also, if wealthy people in Szechwan wished to be bond-holders, that this procedure should be permitted. Since many people in Szechwan had paid into the former fund, special plans should be made by the government to return this money at once. Then, second, the people opposed the leadership of Li Chich Suin 李穆動, appointed by the government as superintendant, and he should be relieved of office at once.

The Peking Government refused to accept or act on this petition, but urged him to leave Shanghai and proceed at once to Szechwan. Later he wrote kindly to the Szechwan people as follows, "It is some time since I left Szechwan, and although aged and unwell I always remember Szechwan. I am sorry you have so many troubles. I hope that you can overcome them all. Although I desire to come to you the distance of 6000 li is too great for me at this time. I wish all the gentry, citizens, farmers and workers would all settle down to your work and not struggle with the troops. I shall come to you as soon as it is possible. On my arrival I shall ask you to send representatives to me and we shall discover the best way out. I shall not cause you suffering".

This letter was forwarded and he also wired to the military and civil officials in Chengtu as follows, "At the present time do not imprison the gentry; those already imprisoned should be released and guarantees secured. Treat them kindly and await my arrival when full examination will be made of their case. You officials must not destroy the people."

When the Szechwan people saw these letters and wires they were very pleased and eagerly awaited his arrival. However, the officials were afraid of Chen Tsuen Shan and started rumors against him by way of showing their opposition to his coming. The Manchu prince in Peking, Yi Chang 奔動 also hindered his coming. When Chen Tsuen Shan arrived in Hupeh he heard the rumors of both sides and was very angry. Feigning illness be discontinued his journey. The news of Chen's non-arrival was disquieting to the people, and again the Railway League armies commenced the attack. Many battles were fought at Shuang Liu 變流. Pen Shan 彭山, Chung Chin Chow 崇慶州, Wen Kiang 溫江, Junghsien 榮縣, Wei Yuan 威遠, Chien Wei 變為, Ya Chow 雅州, and Chungchow 刊州.

Now we must relate some other matters incidental to the

Revolution. Let us speak of the relations of the foreign community, and the efforts of the local Government in seeking proof to

convict the imprisoned gentry.

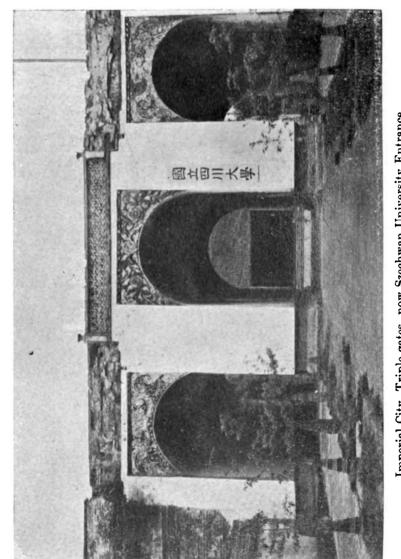
At the time when Chao Er Feng took the nine captives to his yamen, S. C. Yang 楊少鏊 with Chang Chih Chin 張志貞, visited the foreign consuls and gave them needed information about the new leaders and those who had been imprisoned, and made clear that there was no wrong doing, only necessary political action. However, when the situation got out of hand, the foreign community left their homes and gathered in Si Shen Tsi hospital. Although the hospital building was not quite completed it was quite habitable, and it seemed better to have the foreign community together in order to take joint action rather than exposed to individual incidents. The officials appointed representatives to communicate with the foreign community, and kept them advised on the general situation; also, troops were sent to guard the hospital.

Chao Er Feng and his officers desired the execution of the nine captive gentry, and easerly sought evidence to convict them. On Wen Miao Shi Kai 文願西街, at the Temple of Wen Chang 文昌宫 god of literature, was found behind a hanging board of characters an emperor's robe and crown, also a big seal and a list of names. In this list of names was Lien Ya-go 連雅各, secretary of the Y.M.C.A. He was chairman of the student movement. The officials sent men to apprehend him. Mr. K. P. Yang 楊國 爲, the senior secretary, answered that Mr. Lien was a secretary of the Y.M.C.A. and had been appointed to Chungking where he had gone, and was also going to Shanghai to study in the Y.M.C.A. If he is needed we must write for him, but we have no evidence of wrong doing and the government must take the responsibility. There seemed to be very little evidence of Lien's revolutionary tendencies, and so the case was allowed to drop. Still the government sent officers to his relative, Liu Wan I 劉萬鐘 and searched the shop thoroughly for evidence, but none was found.

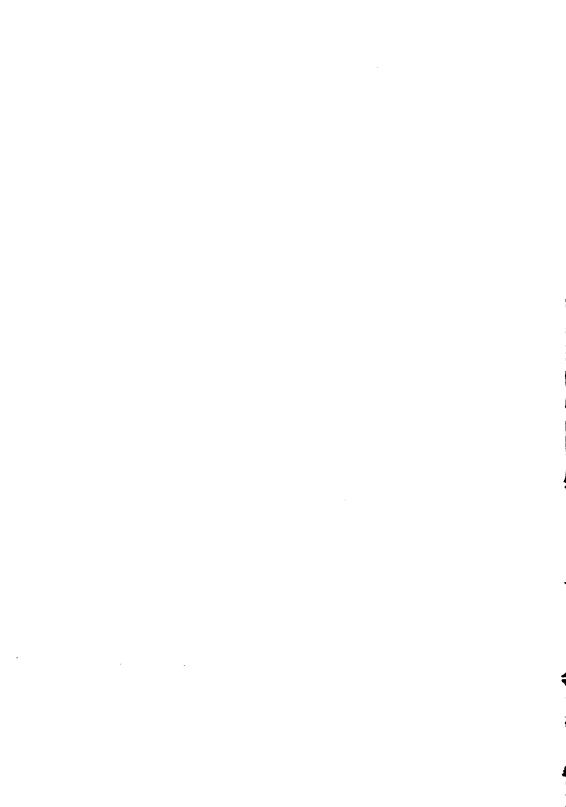
Later the government officers went to the Railway School and found in the well a yellow parcel containing a big seal. On the seal were engraved eight characters, "Seal of Shi Ku King of Ta Han" 大溪西谷王之玉里. It was later found out that this was made by police officer, Lu Kwang Chong 路度中, who thought it a good plan to gain publicity in order to get a better position, that he himself had made the seal and secreted it in the well, then gave out word of its discovery and called the police officials.

The only bit of evidence that seemed likely was a printed sheet called, "Szechwan People's Discussion of Self-Government." However when this was found, Yen I Si 图一士 assumed all responsibility, and he was then held in bond by Chao Er Feng.

When the nine gentry were taken to the yamen they were at first roughly treated. When they were invited to the yamen they came separately. On arrival at the guest room each man was



Imperial City, Triple gates, now Szechwan University Entrance.



escorted by two soldiers, one on either side, and each was tied to his chair by own queue, and soldiers held pistols to their heads.

When Chao Er Feng came out to see them he was very angry and said, Why did you start this revolt? When I arrived here from Tibet, I advised you as leaders of the gentry to exhort the people to obey the law and refuse to strike, and then peacefully discuss the Railway League questions. You promised me that you would do so, then went back and gave revolutionary lectures to the people, encouraging them to oppose the government; you are very wicked."

One of the prisoners, Ten Shao Ko 野孝可 said, "Governor you invited us here as your guests. We are your guests, you are our host, and now you guard us with soldiers and tie us to chairs by our hair. This is not very polite."

Chao Er Feng replied, "Today you are not guests. I am not host. This is quite a different situation." Later other prisoners talked with Chao Er Feng and impressed upon him that they had done nothing treasonable. "If you really want to destroy us, why we are in your power" one said. They heard the soldiers report that many thousands of people were crowding about the courts and doors of the yamen all carrying imperial tablets and incense in their hands, who had come to demand the release of the captive gentry. Later they heard rifle reports. This saddened them, as they knew now that the people were suffering on their behalf. Then they demanded of Chao Er Feng that they all be taken out at once and executed, because, they said, "This is not the fault of the people. We take full responsibility and are ready to die." They heard from the outside windows, "Wait for orders, and keep them close prisoners."

Let us now turn our attention to the fighting.

Many citizens discussed plans for the saving of the nine gentry captives. One named Hisang Li Lan 问禮南, suggested securing the aid of the "Ko Lao Hue" 哥老會, "The Elder Brother Society." He took some members of the Railway League and visited western and southern districts of Szechwan. He had many meetings with Elder Brother Society members and urged them to organize and help oppose the government soldiers. Some of their leaders were very earnest and came at once to the relief of those in trouble. They were Sen Tsch Pch 孫澤沛, Wu Chin Hsi 奥慶熙, and Heo Boa Dai 候保膏; these all came with their brethren to join in the fighting about Chengtu. The government soldiers were divided into two parties. The old party were men from other provinces called "Suin Fang Chuin" 極防軍. the patrol guards." The new party were called, "Lu Chuin" 陸軍, or infantry, and were mostly Szechwanese. This parts, whose members and families lived here, were in favor of the revolution. They had their "Native Sons Society," Tung Hsiang Hue, mill and people from the same districts formed branches of the society. Each had District

Conferences and lectured the solders telling them if they continued fighting that they would be destroying their own kinsmen and their ancestor's tombs. They accordingly refused to fight and when ordered out to fight would give the revolutionary signal of thirteen gun-shots, by which it was known they were "New Party" soldiers and would not fight their own people. So although Chao Er Feng sent troops out to fight the Ko Lao Hue, for over two months there was very little result.

One day one of the nine captive, gentry Yeh Pin Chen 葉泉誠 had some trouble with his teeth and asked for a doctor. Attendants came with the message to Chao Er Feng who called him into his presence, and asked, "Do you know of the conditions outside?" "No, we have had no news". Chao Er Feng told him, "Now conditions are very much worse. The Railway League is everywhere and many members have joined the troops to attack Chengtu. You

are one of the leaders, do you recognize your faults?"

Yeh Pin Chen answered "No, we are gentry and scholars and have done nothing wrong. We have obeyed the law, and any new movement we have encouraged has been from a patriotic standpoint, because the great powers have often planned the partition of China. If the Chinese people do not awaken and have constitutional government, our China will certainly be destroyed. Yes, we are the leaders of our people, and we wish to use our own conscience to help our country. We do not oppose the law, nor do we oppose the central government, and we do not oppose you the governor of Szechwan".

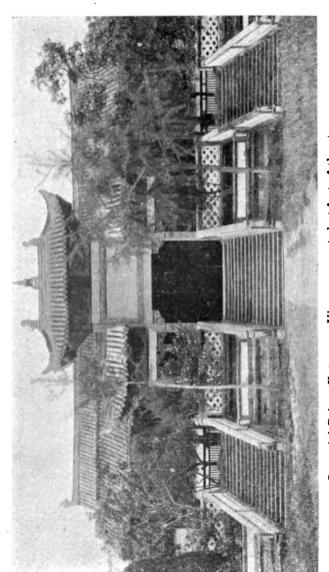
Chao Er Feng replied, "I have been on the Tibetan Border for some time, so may be I do not know the real condition of our country and the world, still I am doing all I can conscientiously to make China strong, what is my fault?" Then he wept, and later said to Yeh Pin Chen, "We have found much evidence that you nine gentry leaders are heading a new Revolutionary Movement". Yeh Pin Chen said, "What is your evidence?" "We have found an emperor's robe, crown and seal, with names of military leaders you have appointed. How can you say that you are not organizing a revolt?"

No, that is not true. The nine people here are some of them scholars of the Han-Lin college, some officials, and others are

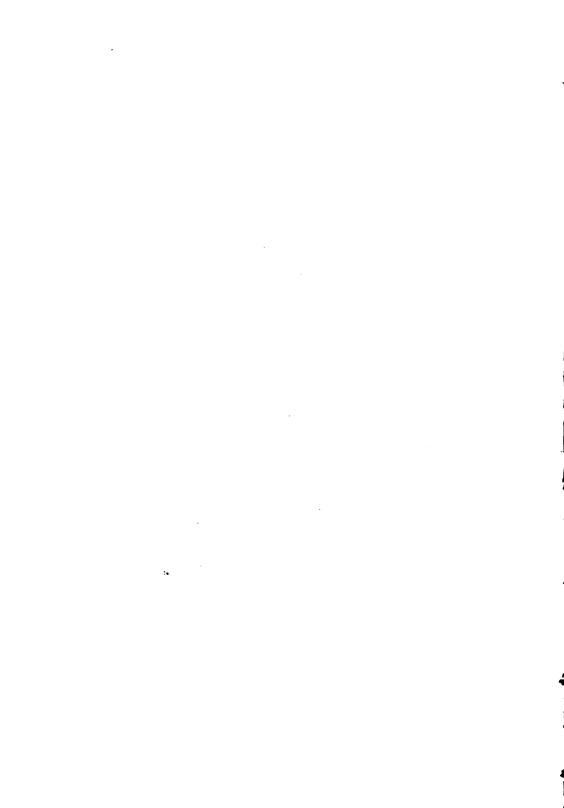
civilian scholars, how can they organize a revelt?"

Chao Er Feng said, "I have no time to debate the matter with you. Later I will send you to the Supreme Court in Peking. You say your teeth give you trouble; you may find a guarantor for your presence and leave this place to receive attention. If there is opportunity I hope that you will urge the Railway League not to attack Chengtu again". Accordingly Yeh Pin Chen was released.

Chao Er Feng had really decided to execute the nine gentry and sent several petitions to Peking asking permission. When his petitions arrived in Peking the Manchu Minister, Dzai Tach 數譯



Imperial Palace Entrance. Viceroy executed at foot of the steps.



held a Conference in the palace with the princes and ministers. Dzai Tseh took up Chao Er Feng's two petitions for discussion, saying that they were very important and should be discussed first. The Manchu Prince, Chin Chin Wang 慶親王, said no, they are not so important as other things, then drew a telegram from his boot, saying ''This is much more important''. "Why?" "Wuchang, capital of Hupeh has proclaimed independence''. This surprised and perturbed the conference so much that discussion about Szechwan and Chao Er Feng's petitions was dropped.

Chao Er Feng waited, but no answer came. Later he heard the Wuchang news. He invited the Tartar general to discuss the matter with him, telling of his desire to execute the nine gentry captives and asked his opinion. Yu Kuen 格兒 the Tartar general said, "No, I cannot agree. These men are well known leaders of good reputation. If you wish to execute them you alone must take the responsibility as I do not wish to share such responsibility". In the governor's yamen the provincial director of education, Liu Chia Dzeh 劉書榮, and police commissioner, Hsü Yueh 徐樹 both agreed with the Tartar general. Chao Er Feng finding that he had no support stopped the trial proceedings against the prisoners.

When the officials and people heard that Wuchang had declared independence, and that members of the Railway League responded to the lead of Hupeh, the league found itself in a much stronger position and fought more resolutely. Now Chao Er Feng, recognizing that he could no longer oppose the gentry and the people, said to his officers that if the officials of the Railway League would grant hostage for the nine gentry, he would release them with the hope that fighting would cease. He also admitted that Yeh Pin Chen was a good thinker and able speaker. Accordingly, the Railway League appointed Yeh Pin Chen their representative to manage with Chao Er Feng the matter of finding guarantors for the release of the nine, now eight gentry. Yeh Pin Chen gave the names of prominent leaders willing to be responsible, so the long imprisoned gentry were finally set free and received a great ovation from the people.

Dwan Fang 端方 the Manchu General, previously appointed by Peking as commissioner for the railways, and sent to Szechwan with brigade of troops, now reached Tzechow after a long stay in Chungking. He heard of the independence proclamation in Wuchang, so appointed as representatives to go to Chengtu, Chu Shan 朱山 and Liu Ngen Peh 劉恩培 to have relations with the leaders of the Railway League about the independence of Szechwan. Chao Er Feng was very displeased at this because Dwan Fang was a Manchu, so Chao Er Feng urged the Chengtu leaders to declare indépendence apart from Dwan Fang. So on October 7th the Chengtu leaders declared the independence of Szechwan and reportted the same to the Peking Government. The people were highly pleased now that they were liberated from the Manchu yoke.

However, China had been so long a monarchy that they knew little about republican procedure. Then the Y.M.C.A. invited an American teacher in the Chengtu Government College to lecture on the American Republican Constitution. This was interpreted by S. S. Yang.

Dwan Fang's chief of staff, Dzen Kwang Da 曾廣大, was anxious to leave Tzechow and push on with all haste to Chengtu, but Dwan Fang halted and finally refused to move. This caused his undoing for Dzen and the troops revolted and slew Dwan

Fang.

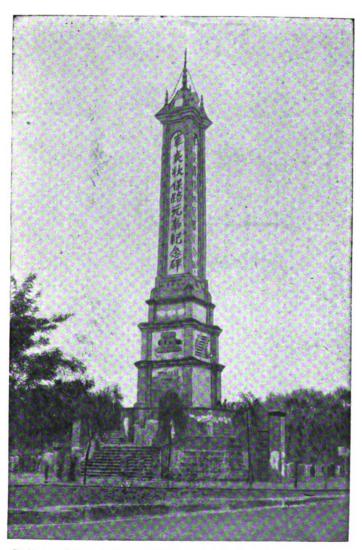
Now there was a general move to cut off the queue, the last outward badge of servitude to the Manchu regime, and thus prove the complete break with the Manchu administration,

On October 7th K. P. Yang and S. C. Yang went to the foreign consulates and informed them of the changed conditions reporting that the people were happy at the change and would

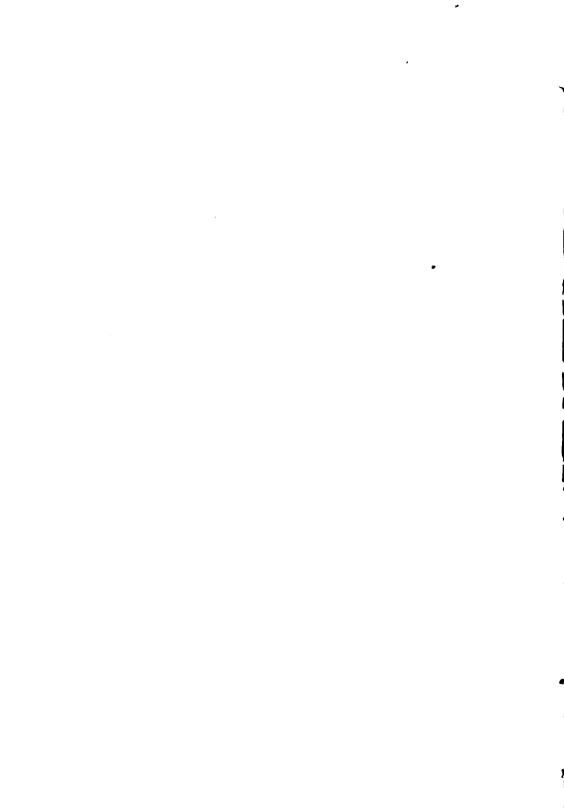
continue to keep the peace and protect foreigners.

Before the 7th there was considerable discussion as to how the government should be constituted after the Declaration of Independence. The Tung Ming Hue 同盟資 or Revolutionary Party had its head quarters in the Kiasing Middle School on Yü Long Kai 玉龍街 in Wu Wen Su's quarters 異文淑. They held a conference to discuss the question, and among those present were, Liang Chuin Min菜 鑳 民, Pen Han Th 彭 漢 --, Dzen Cheo Wu 詹覺吾, Chen Chu n Hsin 陳君侁, Den Hen Tang 鄧衡堂, and S. C. Yang. On the 5th of October they were joined by Yang Wei 楊維 who was just released from prison, where he had served with Li Chin Yuin 黎慶雲, Wang Su Huai 王樹槐, and Chang Chieh Wu 張轉 L on account of revolutionary activities. On the 6th, they invited Den Shao Ko 鄧孝可 one of the former "Nine Gentry Captives", who was a most energetic radical. He was suggested for the new governorship. Many plans were discussed and some suggested the burning of the yamen and the destruction of Chao Er Feng. This was seriously considered and a member, Den Hen Tang was asked to do this as he was a member of the guard at the yamen, and himself had quarters in the yamen and was therefore familiar with yamen conditions. They suggested using oil to cover his windows and doors and burn his own room first as a signal to soldiers, who would be waiting nearby, that the right time had arrived; then they would rise, kill Chao Er Feng and burn the yamen. On the day appointed no fire appeared and the soldiers remained in hiding awaiting the signal. Later it was learned that the plan had been divulged to Chao Er Feng, who taking warning, had Den caught and imprisoned.

This man Den Hen Tang 野飯堂 was a native of Wuchang, Hupeh, His parents and grandparents were farmers. When he was quite young, his parents died. Being by nature radical and finding it difficult to get along with others, he ran away from his



Railway League Memorial Tower, Public Park, Chengtu.



brother's home at the age of 15, along with others. He went to Peking and became a soldier and later travelled to Chengtu as a member of Chao Er Feng's bodyguard with the rank of captain. He served with distinction for some years with Chao on the Tibetan Border. In 1911 when Chao Er Feng returned to Chengtu, Den come with him. In October he met a young revolutionary, Liang Chuin Min 梁隽民 and as they were countrymen from the same district they became good friends and Liang introduced him to the Revolutionary Party. He attended the conferences and also met with them at Pen Han I's 彭漢一 dwelling in Ren Chia Hang 任 家巷. On October 5th he met with them in conference when the burning of the yamen was discussed. Among others present that day were Liang Chuin Min 梁鎮民, Pen Han I 彭漢一. Dzen Puh Tsao 詹步超, Cheng Chuin San 陳才佑 Wu Wen Su **吳文叔**, and some won.en Pen Wei Chuen 彭惠棻, Shie Ren Chieh 謝人傑, and Chu Cheo Min 崔忠民. Then Den Tang 鄧齡堂 arrived. When he heard the discussion he volunteered to do the burning. assented, others demurred, fearing a trap. Den sensing the suspicion, stood up and threw his cup on the ground breaking it into many pieces, saying, "If I am unfaithful to you I am willing to be boken into as many pieces as this cup". When his plan failed and he was brought before Chao Er Feng he alone took all the responsibility and refused to divulge the names of other although under severe examination. Chao ordered him to be executed. At Chao's side was a military assistant who advised that he not be executed as the revolutionaries were becoming successful and it was useless to anger them by further executions. The next day the New Government was established and Den gained his liberty.

Later a few important gentry, Lo Len 羅綸. Chang Lan 强调, and Hsiao Tsung Ngen 邵俊恩 went to Chao Er Feng and discussed with him about who should be the next governor. After much talk they decided on Pu Dien Chuin 蒲鳳俊, president of the provincial assembly, to be the "tu-tu" 都督 or civil governor, and General Chu Chin Lan 朱慶渊 to be head of the new army. He was to be vice-governor and in control of military matters. On Oct. 7th at 10 a.m. the new Szechwan Government was formally proclaimed, in the Imperial city. When Chao Er Feng decided on these men, both sides signed an agreement, and Chao Er Feng, in his own name sent out the proclamation. The new governors had a very elaborate and interesting ceremony of installation.

Then the military and civil officials were appointed as follows;—Lo Len 羅綸 former vice-president of assembly, and one of the "nine captives" became commissioner of pacification; Yuin Chang Hen 尹昌衡 chief of the military bureau; Ten Chien 會鑑, chief of the educational bureau; Chen Sen Wu 陳名香, chief of the department of the interior; Yen Kai 凱幣 supreme judge of the criminal court; Ten Hsiao Ko 節孝可, commissioner of the salt

department; Chian Shou Mi 蔣背眉, commissioner of foreign affairs: Kao Kai Wen 郭鹏文. Chief of the bureau of communications; Su Dju Hsiang 舒鉅群, commissioner of police; Liao Tze 整治, commissioner of industry. Also they appointed Cheo Hsien Chan 都涵章 and Shu Dju Hsiang 舒鉅群, to manage the two government banks, the "Da Chin" 大清银行, and the "Chuin Chwan'' 添川銀行。 Yeh Bin Chen 葉秉誠 became chief secretary of state. Numerous minor officials were also appointed at this Final decisions were all made by the civil governor, but it was found very difficult to carry on because of the multiplicity of officials and serious overlapping of departments and duties. Then the junior officials demanded an advance of three months salary. Also, the leading officers of the country militia and the secret societies felt they had a grievance inasmuch as they had worked hard to bring in the new regime and were now left out in the division of offices, and they now came forward with exorbitant demands.

The vice-president or vice-governor, Chu Chin Lan 朱慶瀾. was not a native of Szechwan, and the old troops were mostly from other provinces and could not agree with the Szechwanese troops. In the Elder Brother Society many of the troops were no better than robbers. At this time the Manchus living under the 'Eight Flags' were in financial difficulties. Formerly the government paid their expenses, but now who was to be responsible for them under a republic? The question arose too, about the gentry and officials who had come from other provinces to assist in the Szechwan revolutionary activities. Also, there were still two parties, the Revolutionists and the Constitutionalists, and most naturally friction broke out between them at many points. of these questions seemed impossible of speedy solution, especially since the governor, P'u Dien Chuin, was more of a scholar than a politician. So many things needed to be decided that if he had had ten mouths he could not have argued them all, and if he had had ten pair of hands he could not possibly have managed so many activities. The most difficult question of all was the settlement of the Railway League problems.

The new troops had swarmed in from all parts of the country and had occupied all the temples, and now loath to depart were desirous of partaking of the spoils of victory. Daily they paraded the city streets and made appeals to the new government. They swarmed about the government courts and spent days in gambling.

The new governor found more difficulties than he could possibly adjust. He discussed the matter of the troops with the other officials, and decided to call a roll of the troops and get them all listed, give them three months pay, and request them to keep the peace. It was decided that on the 18th of October at 10 a.m. they would meet on the Eastern Parade Ground before the governor and officials and the roll would then be called. Just when the roll-



The Chang Hsien-chong stone Tablet of 1628, in the Public Park, Chengtu.



call was beginning some soldiers on the outskirts of the grounds began firing rifles in the air. At first there were just a few but gradually it became general. The officials tried hard to gain control but utterly failed and were even in great danger of their own lives, and so were forced to flee for safety. The soldiers scattered everywhere on looting expeditions. First they attacked the Provincial Treasury, then banks and pawn shops, and later smaller merchant banks and shops. The entire day from morning until dark was spent looting the city. The poor people joined with them and many fires were started, and much rifle firing was indulged in. They continued throughout the night until early the next day. There was great disorder. This was the 18th, called the day of the "da chi fa" 打足粉, the "day of looting," really meaning, "enriching self with other's money."

S. C. Yang, representing the foreign office went to the foreign consulates and foreign friends to explain how the situation had gotten out of hand, and communicated to them the pass-word of the secret societies. He assisted them in preparing lanterns painted with the word "djen" E or "upright" in conspicuous fashion. These lanterns were kept alight at nights in foreign compounds and proved the right talisman, for it was the pass-word known by all the societies and effectually prevented looting.

After this S. C. Yang accompanied Yang Wei 楊維, and Liang Chuin Min 梁男民 to interview the new government in the imperial city; soldiers were here in numbers to keep order for the times were very restless and uncertain. Inside were no government officers with the single exception of Lo Len, one of the former "Nine Gentry Captives. "Why are you the only man here?" was asked. "The others have gone. I do not wish to escape. I wish to die on behalf of the New Government" he said. "Is there any plan to protect the city?" he was asked." "There is no way to keep order" was the reply. After a short chat they left, and next day Yuin Chang Hen 尹昌衡 was elected the new governor, and Lo Len 凝綸 vice-governor. One of the leaders of the Elder Brother Society, Wu Chin She 奥慶熙 took his troops and entering the city took quarters in the provincial assembly and captured all looters he could find and promptly beheaded them. From the 19th to the 21st of October, S. C. Yang communicated constantly with the new governor and his father-in-law Yen Bie-Chin 真伯學, who was father of the famous Yen Kai 道楷, supreme court judge, and former leader of the "Nine Gentry." He received a very warm welcome. They said, "we need you very much as we are thinking of the foreigners and their safety, and if they wish to leave the city we must find loyal troops to escort them down river." Then S. C. Yang went to General Wu Chin Hsi 異慶熙 head of the Elder Brother Society troops, and secured an escort of one hundred reliable armed men. They toured the city and gathered the members of the foreign community together at Wang Chiang

Leo **GIR**, "Thunder God Temple." One of the foreigners, R. L. Simkin, being a Quaker was averse to military escort, and personally took his baggage and hired a small boat on his own account, placing his baggage thereon, and himself elected to walk overland, meeting some hard experiences by the way. He is honored for such action because being a Quaker he had conscientious scruples against military escort. The foreigners were safely evacuated.

Now let us turn to the conditions on the streets of Chengtu. On practically every street there was a "Kung Keo" 公口 or Lodge of the Elder Brother Society 哥弟會 which kept order for each street and prevented looting. Even Christians like Chen Wei Hsin 陳維新 became "Pao Ko" 袍哥, or "Gowned Elder Brothers' or leaders in the secret societies, and opened "Kong Keo" 公口, or Ma-teo' 碼頭, "harbours" or lodges, to protect the people, with the popular signs and symbols now quite familiar to the people. Although the foreigners had left, the deputy Japanese consul arrived in Chengtu, because some Japanese teachers still remained. They all lived in the government college. Yang Wei and S. C. Yang were sent to interview them, and to inform them that foreigners had left and that it was very difficult for the government to give them adequate protection. They replied, "If you Chinese cannot protect us we will depend upon our Japanese emperor to protect us". They were urged to put this in writing so as to absolve the Chinese from blame in case of any unpleasant incident. They refused to write but were ready to leave if boats were provided. The government provided boats and escort and they left the next day.

When the foreign questions were all settled the new government turned to the many questions in the capital and province needing settlement. Formerly all momentous decisions depended on the governor; now it was decided to share the responsibility, and many officers were changed and the Government reorganized as follows;—

Hsiao Chong Ngen **和**從恩, Commissioner of the Interior Liu Tien Yu 劉天佑 Vice-Commissioner of the Interior Dong Cho Wu 董修武, Provincial Treasurer Dong Shin Bei 董慶伯, Vice-Provincial Treasurer Wang Bei Han 王伯涵, Commissioner of Industry Yang Keng 楊剛. Vice Commissioner of Industry Sen Yu Bei 沈東伯, Commissioner of Education Liu Dong Tong 劉東康. Vice-Commissioner of Education Peng Kwang Lieh 彭光烈, Chief Military Bureau, Commander, Second Army.

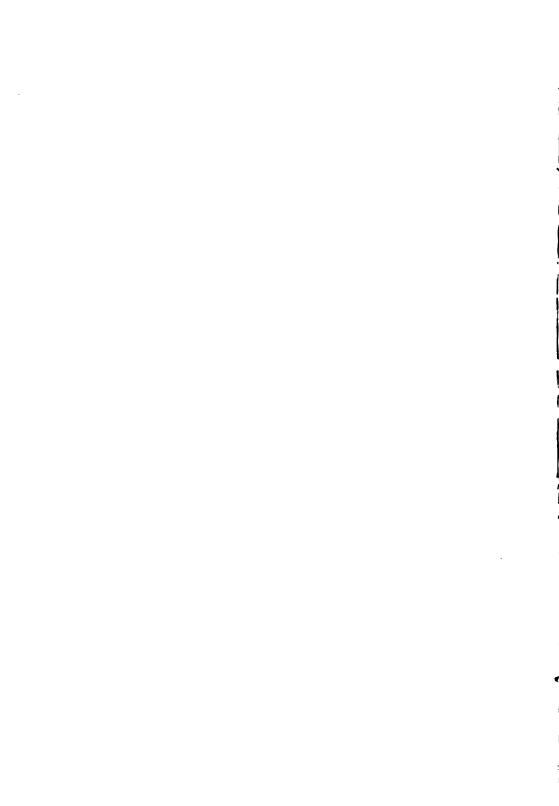
Chao Chuin 周駿, Commander, First Army. Sen Dsao Luan. Commander, Third Army Liu Tsen Heo 劉存厚, Commander, Fourth Army Dan Hsiao Ko 點孝可, Salt Commissioner Yang Wei 楊維. Police Commissioner



The original inscription on the Chang Hsien-chong tablet, Chengtu.



S. C. Yang, acting commissioner for Foreign Affairs after the Revolu ion in Szechwan.



Yang Su Kan 楊廉雋, Commissioner for Foreign Affairs S. C. Yang 楊少基, Vice-Commissioner for Foreign Affairs Yang Su Kan never arrived from Chungking so S. C. Yang

assumed the office of commissioner of foreign affairs.

The governor and vice-governor invited the principal leaders of the Elder Brother Society, Wu Chin Hsi 吳慶熙, Shen Tseh Pai 孫澤沛, Heo Bao Dzai 侯保竇 and others to a complimentary banquet. Before the feast, Lo Len **\*\*\*** the vice-governor said, "Thank you for your bravery in action and your hard fighting in the cause of the Revolution. Your opposition to Chao Er Feng was very determined and without doubt you saved our lives. for your valor the "Nine Captives" would have been executed. Now the New Government has been established but the first one did not last very long and the people suffered greatly because the looting was very severe. Now the new Government has just taken over and has before it a very formidable array of heavy tasks to per-If we cannot succeed now, our shame will be very great Now you who have come to help keep order have many lodges, and we trust that you will instruct your brethren to be faithful and act as real protectors of the people. I, as a representative of the people, take this opportunity of thanking you in advance for they have suffered greatly. Lo Len then knelt and "kow-towed" to the society officials. They protested, and promised faithfully to protect the people.

Yang Su Kan 楊麻城, who had been appointed to the office of commissioner of foreign affairs, was permanently detained at

Chungking.

Accordingly, S. C. Yang was duly installed in office. Accompanied by a guard of troops supplied by the governor he formally took over the foreign office. There were two assistants, Chang Wen Bin 張文斌, and Huang Chi Yuan 黃繼元. These two were old friends of the commissioner so things ran smoothly. The old Manchu system was discarded and a new republican order of official businese established in foreign affairs. There was much to be done to set the province in order and the office was open and the staff worked diligently from 8 a.m. to 4 p.m. daily. Many foreign documents had been waiting attention, and many more came in. Many adjustments had to be satisfactorily carried out with the foreign consuls. The office had intimate relations with the governor, Yuin Chang Hen 尹昌衡, which helped considerably to expedite matters and made for more efficient transaction of business with the foreign community. The salary at first was only six dollars a month, and was called "travelling incidentals"; it was later raised to two hundred and forty per month.

About the time of the October 18th disorders, the government placed three cannon to guard the gates of the government head-quarters in the imperial city with detachments of guards in charge of them. One day a guard left his gun in charge of a substitute

86

efficient plan.

who, contrary to instructions, moved the breech and accidentally discharged the gun which was loaded with shell. Just at this moment S. C. Yang with two men were leaving the old imperial The shell fell among them decapitating one, throwing a second to the ground, and severely shocking S. C. Yang. people gathered wondering at Mr. Yang's narrow escape as he was in front of the party, and he alone escaped injury. He experienced some pain in his neck, and on examination it was found that brains and blood of his unfortunate men were found adhering to his neck, and blood was all over his clothes. The jacket is still kept in the family as a remembrance of the narrow escape of Mr. Yang in those restless revolutionary days in Chengtu.

Before the 18th of October the Revolutionary Party held a meeting at Lan Chiao Chang 南較場, the Southern Parade Ground. This meeting was called "Kuo Ming Da Hue" 國民大會, the "Great Conference of the People", A leader name Dong Shiu Wu 董修武 announced to the assembly that the chairman of the conference should be Dr. Sen Wen, and then as vice president, consented to act in his stead. He told of the troubles and victories of the Revolution and urged the people to assume responsibility and help the new government with their onerous tasks, and expressed the hope that the new government would work out a modern

However, there was still much trouble ahead. The Chengtu government seemed able to function only about Chengtu. Other places, like Kiating 濕定, Suenking 順慶, Suifu 叙府, Luchow 瀘州 and Chungking 重慶 all had local governments, quite independent. Chungking's government held the longest because it was well organized by strong experienced revolutionaries. They also had a ''Tu-Tu'' or governor. Chang Lieh Wu 張忽五, and a vice-"Tu-Tu", Hsia Chih Shih 夏之時. This General Hsia had a bodyguard of about one hundred troops and was stationed at Lung Chuen Nie 龍泉驛 where he had been sent by Chao Er Feng. Later he moved toward Chungking, picking up more men en route, and arrived in Chungking with a strong force of five hundred. Here they organized the new local government along revolutionary lines. When the other cities failed, only the two larger cities, Chengtu and Chungking had governments that really functioned, but independent they were quite of each other. Many used their good offices to effect a union between the two governments, so as to create a strong provincial government center. Sao Tsong Ngen 邵從恩, principal of the Law School must be given the credit for effecting the coalition and final union.

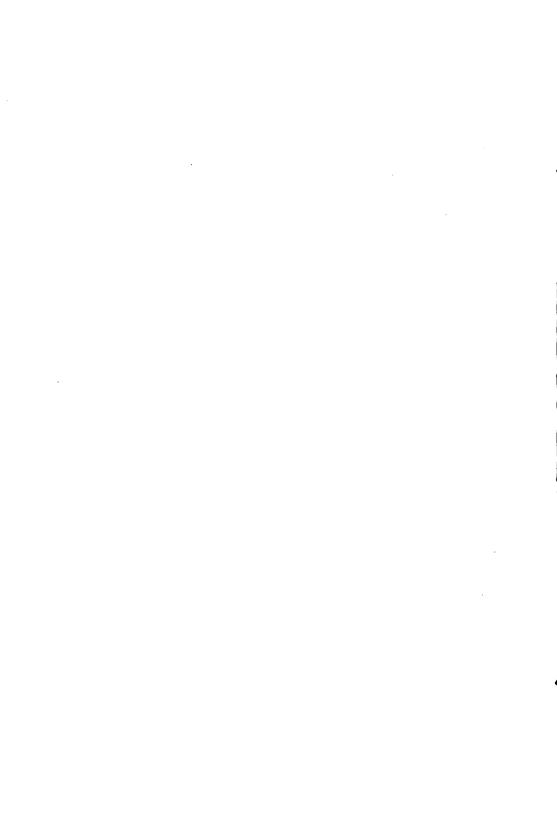
At this time order in Chengtu was conspicuous by its absence; the city was still very unsettled and lawless elements had pretty much a free had. When Chao Er Feng granted Szechwan her independence he made a contract with gentry, P'u Dien Chuin Mi 殿俊, Lo Len 羅綸 and others through Sao Tsong Negn 邸従恩



Front Row: 1. Mr. Chang Wen-ping. 2. Mr. Whang Chi-yuen. (French and English Interpreters).

Second Row: 3. Mr. Chao Sao-lung. 4. Mr. Pen Han-yi. 5. Mr. Yang Shao-chuen, acting commissioner for foreign affairs. 6. Mr. Tun Hung-tong, who attempted to

Third Row: 2. Mr. Yang Kwei-ping. burn the Viceroy's yamen.



as middle man between Chengtu and Chungking governments, that he would give up his governorship and return to the Tibetan Border as Commissioner of the Marches, and that the Chengtu Government would be responsible for the expenses, and further that the government should appoint four men to go with him. It proved difficult to find four men willing to go so Chao Er Feng's departure was delayed. He still had troops under his command from other provinces. After "the day of looting" in Chengtu many groups of unruly soldiers wandered about the city and country-side. was difficult for the looters to escape from the city with their great loads of ill-gotten gain, and there were groups everywhere affecting all sorts of disguise. Many posed as women in sedan chairs laden down with money and loot and attempted to escape. soldiers took prostitutes as temporary wives, attempted to move to other parts with their loot. Money was hidden in coffins and burials simulated in the endeavor to get treasure out of the city. Poor soldiers were wearing silk and furs and loaded down with silver and other loot. Both in and out of the city many were caught by Railway League troops and executed.

The wind of revolutionary success went to the heads of many younger men in the service of the Railway League and they indulged in all sorts of public demonstrations, dressing up like actors, painting their faces, arranging their hair and clothes like heroes in the play. They appeared in the public streets in this fashion, acted most boisterously and took the law pretty much into their own hands.

Fortunately for Chengtu at this time the new chief of police was a man of strong leadership, with plenty of courage and progressive ideas. Yang Wei 楊麗 was a man to be reckoned with in these times of unrest. He trained his police as a military unit and gave them hard daily drill. They paraded the streets stationing picked men in fours with loaded rifles at all the principal street intersections. Then he abolished the secret society harbours. He influenced the governor to enroll members of the Elder Brother Society in the Second Army under P'en Kwang Lieh 形式器 Gradually they were absorbed into batallions mixed with other troops and by degrees drafted off to distant places.

Yang Wei proved the right man in the right place. Both in and out of the city when incidents happened Yang Wei, at the head of a corps of mobile police, went personally to investigate and arrested criminals and leaders of vice without partiality. His strong arm was everywere felt and a great measure of confidence was restored in Chengtu.

Also Dan Meng Hsin 但懋辛 was a very able men. He was a member of the Kwangtung group from which the famous "Seventy-two Heroes" were killed. He returned to Szechwan and proved an ardent revolutionary leader in Chungking, then later came to Chengtu where he was appointed prefect of Chengtu. He

Let us now turn to Chao Er Feng and his death. After Chao Er Feng gave up the governorship and was ready to return to the Tibetan Border when the government found men to go with him, he was delayed because these could not be found. When the looting took place on October 18th, almost all the troops that took part were under his care. The new officials had serious suspicions about Chao Er Feng's part in this. Then it was discovered that he had sent a telegram to the Border to his deputy, Fu Song Wu **傳譯號** to bring out troops and assist him in a revolutionary counter attack. The day after the looting he posted a proclamation using his old title calling the revolutionary troops to meet at his yamen. November 2nd, the new governor found a man T'ao Tseh-kuen 陶邃鲲, an officer of Chao Er Feng's with incriminating evidence. Early the next day the governor, Yuin Chang Hen, placed big guns at the East Gate, and on the city walls. Then he personally led an attack on Chao Er Feng's vamen and surrounded it with troops. Captain T'ao Tsch-kuen 陶澤鼠 was inside and gave the signal to attack and betrayed Chao Er Feng to his enemies. captured and taken to the old imperial city.

Yuin Chang Hen ordered a trial and charged Chao Er Feng with revolt against the new government, and with the murder of many of the Railway League, and now with an attempt to bring in Border troops to attack the new government. Chao was given little chance to reply as the peeple clamored for his death, with "Kill! Kill!" Chao Er Feng calmly replied, "I am in your hands, kill me if you wish". The Governor gave the order and he was forthwith executed.

The New Government treated the Manchu officers of the old regime with much consideration. After independence was declared some of the old officers left Szechwan; some had departed before. Travelling expenses were allowed them and escort provided. The Tartar governor was kindly treated; he was given a complimentary feast before leaving for Peking. None of the Manchu officials were killed or imprisoned. For the people still living in the Manchu city the new government appointed a special bureau to attend to their needs, and protected them, providing for their living expenses



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FOUR REVOLUTIONARY LEADERS.

Mr. Chen Chun-hsien, one of the Revolutionaries.
Mr. Liang Chun-min, the Commander of the Military Police.
Mr. S. C. Yang, Acting-Commissioner of Foreign Affairs.
Mr. Pen Han-Yi, Adviser to the board of Foreign Affairs, who brought Consul Bons d'Anty through the danger zone.

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and establishing schools for their children. There were rumors of a possible attack on the Manchu people, but the vice-governor, Lo Len, sent his own family to live in the Manchu city and soon dissipated the rumors.

Now that the governments of Chengtu and Chungking were united through the good offices of Sao Tsong Ngen and others, the new provisions provided for the elimination of the vice-governors in both cities. The vice-governor in Chengtu, Lo Len was given another position. The vice-governor in Chungking, Hsia Chih Shih 夏之時, was awarded \$30,000 to travel abroad. Then the Chungking Tu-Tu, Chang Lieh Wu 曼森丘 came to Chengtu to be vice-governor to Yuin Chang Hen, the governor of the province. Thus a happy solution of the vexed problem was effected.

The foreign office was still experiencing difficulties. When the republic commenced, most of the foreign consuls were living in Chungking as the treaty port. Consulates had not been established in Chengtu. At this time the consul for France, Monsieur Bons D'anty who had been to Tatsienlu on a tour of inspection was returning to Chengtu, and at Chung Chow found the roads closed by bandits and wired to the Chengtu Foreign Office for assistance. S. C. Yang appointed a special representative P'en Han Yie 彭漢一who went out and brought the consular party safely to Chengtu.

A question arose on the Chwan-Pien-Tibetan-Burmah Border about some tribes people, and the commissioner Huang wrote to S. C. Yang asking for advice as Burmah had to do with England and came under the jurisdiction of the Foreign Office in this relation. Then Chao Shao Lung 紅少龍, a teacher of English, was appointed to go to the Border and represent the Foreign Office interests and the matter was soon settled.

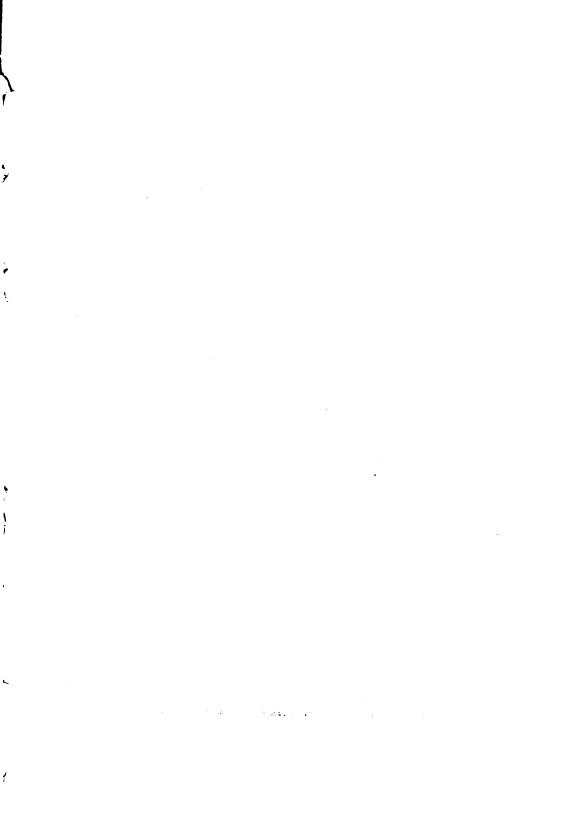
Later the French consul opened a bacteriological station outside the North Gate of Chengtu. This was looted by robbers. Also a man who was a merchant and had a shop, Yuan Li Hung 元利学 had a case with a foreigner. These matters all came before the Foreign Office and were amicably adjusted. Gradually the Foreign Office became an established institution and helped settle many questions.

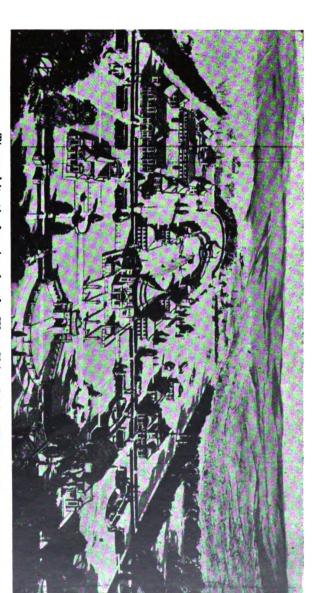
As foreign consuls came in to attend to the business of their nationals, it was deemed wise to have a reception to give them official welcome. The governor, Yuin Chang Hen, and the vice-governor Lo Len, with the foreign office officials, then welcomed at the foreign office for a feast the consuls of Great Britain, France and Germany, as well as the French Roman Catholic bishop and the Postal Commissioner.

Later the Tibetans rebelled, the Yuin Tu-Tu assumed the post of commander-in-chief and took the following efficers with him to the Border, Hsia Tsong Ngen 邵從恩, Kuo Kai Wen 郭開文, Si Chuin Fang 史寶豐, Li Fang Chiu 李芳久, Wang Hai Pin 王海平, Lan Yung Chiu 藍用九 and S. C. Yang for foreign affairs. The Chengtu effice was then handed over to Fu Wen Lan 胡文渊 to be

acting-governor. Later, Yuin Chang Hen recommended to Yuan Shi Kai president at Peking that Fu Wen Lan be governor, and he was established in office as governor of Szechwan, which post he held for more than three years.

This record is not complete because the revolution is still in Much remains to be done to unify and establish the There is still great disorder, and many pressing problem await solution. Tang Shai Chi 尚節之 wrote the Annals of 1911 called Shin Reh Chuen Chiu 辛任春秋. A Note book "Shu Shin" 蜀辛 tells of the Revolutionary struggles. Still another "Lu Si Chi Lu'' 路事紀略 Railway League Records has been printed. studied all these and gathered notes from friends and participants of the Revolution in those stirring days of 1911-12, and have set down my own remembrances and impressions of all these happenings. Naturally the record is not complete, and additions and criticisms will be welcomed from all who can make corrections and help bring this brief history of the Szechwan Revolutionary Movement up to date as an authentic record, We hope that those who read this will recognize that the Szechwan movement was not a small matter but had a most important bearing on the general movement all over the country in ushering in the republican era. This is especially the case and is a momentous twentieth century change when one considers the four thousand years of monarchial sway that held China until 1911, when the great leap was made into a republican form of government. Improvements will come slowly because of the vastness of China and her conservative methods. to remember that the republican idea came to the people of Szechwan through their struggle for independent action in connection with the railway situation. Thus we can truthfully say that the Chinese Republican Revolution began with the Szechwanese people. After twenty years of checkered experiences we must admit that our condition is worse in many ways; we have before us many great unsolved questions that must be met before a real republic can be established, and we need the active friendship and help of all interested in this great venture. We have written thus, simply to outline the beginnings, and to indicate the important and pressing problems that will engage us in the future in our attempt to establish a real Chinese Repulic.





The architect's drawing for the West China Union University.

## UNIVERSITY BEGINNINGS.

## A Story of the West China Union University

## J. Beech

A quarter of a century ago when everything here had its touch of glamour and romance and when the thought of a Christian union university was pure romance, I recall being jammed among crowds as a long line of horrors pushed its serpentine way through one of Chengtu's streets. It conveyed the idea that the lid of hell was off and all the devils and their suffering victims were on parade. That, in fact, is what it was intended to portray. They called it the parade of the "Eastern Hell".

Bridging that quarter of a century, we find a park-like estate of nearly 154 English acres located just outside the south wall of this same city of Chengtu where over a thousand students and teachers assemble in a score of temple-like and towered buildings, and where lovers walk its shady roads and paths borders with many Western and Chinese flowering plants, a veritable Garden of Eden, in springtime. This they have called the "Western Heaven". We call it in Chinese, "Hwa-Hsi Hsie-Ho Da-Hsio-Hsiao", 華內協合大學校 and in English, the "West China Union University".

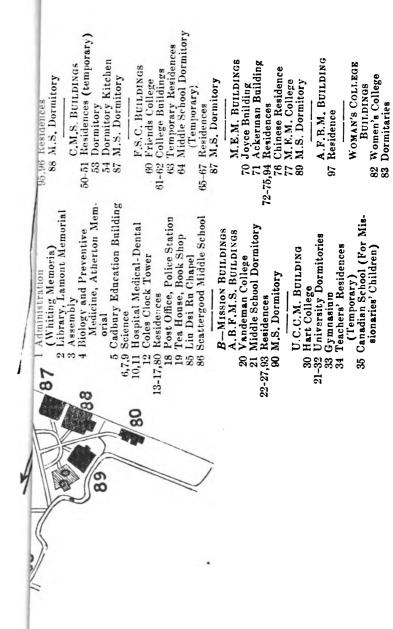
What is it? How came it? What has transformed the hundreds of zig-zag paddy-fields that existed here, when that procession forced its way through the city crowds, into the present city of learning that visitors have called the "Western Heaven"? It is a long story with touches of trouble and tragedy that make it very human and wonders enough to mark it divine. To relate all the story is impossible in this article, so I sketch a few vignettes of the beginnings.

First, What is it?

- (1) It is a Christian Union University, established by the Mission Boards of four Protestant denominations in the United States, Canada and England. Five denominations and three of their women's missionary societies now participate in it, operating, through a Board of Governors in the home-lands, that is incorporated under the Board of Regents of the University of the State of New York. It has also been registered recently under the Ministry of Education of the Chinese Republic, with two-thirds of its local Board of Directors Chinese.
- (2) It consists of six mission residential colleges and the academic and professional colleges of arts, science, religion and medicine and dentistry with their three associated clinical hospitals,

and also, a senior and junior middle school. Its library has 95,000 volumes, and archaeological, natural history, and medical-dental museums contain over 53,000 objects. Eleven thousand six hundred and thirty-four of these objects are in the archaeological divission, largely representing the cultural history of Western China, Tibet and the Border Aboriginal Races.

- It occupies 154 English acres, with 2220 trees of 27 varieties and thousands of shrubs along its miles of roads and paths. The old irrigation ditches that once supplied the paddy-fields with water from the Kwanhsien irrigation system now border the roads and supply lagoons. The excess water is drained off through underground culverts to the river that forms the northern boundry of This improved campus represents an expenditure of over \$100,000 gold. Its assemblage of 21 permanent college and dormitory buildings and 48 residences, with the teaching equipment, have cost over a half million dollars more. Measured in terms of price values of the West this is a very meagre sum for so extensive a plant. Some idea of the relative costs of construction at home and here may be visualized by putting our entire plant in one building 200 feet long by 60 feet depth. It would rival that tallest structure of the world, the Empire Building of New York. normal rate of two silver dollars for one gold dollar, the expenditures for physical plant are represented by a stack of silver dollars just about two miles high.
- The faculty and staff, representing all the continents except South America, numbered 120 in 1933, of whom 71 were Chinese. Only about one half of the total faculty and staff are, however, full-time members. In this same year its students numbered 900; 355 in the University, 420 in the Senior Middle School and 125 in the Goucher Junior Middle Practice School. Established in 1910, it graduated its first college class, consisting of two graduates, in 1915. In 1916, 1917, 1918 it had one graduate each year. In 1919 five were graduated, one of whom is now our president. The total number of graduates, to and including 1933, is 232. One hundred and forty are engaged in Christian institutions and other forms of Christian work; fifty-one are in business, private medical or dental practice or government service; thirty-two are doing post-graduate work, and nine are deceased. The first objective in founding the university was the creation of Chinese Christian lead-These figures indicate that the objective has not been lost. They do not show the whole picture for they do not include many graduates of special courses in religion and normal training. Seventy-five of these graduates received degrees in medicine or dentistry. To maintain this work through a year calls for an expenditure of approximately \$100,000 gold and \$100,000 silver. sum the university has its fees, the salaries and grants from the Mission Boards, income from approximately \$650,000 (gold) endowments, and recurring gifts from loyal friends. Briefly, such in



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facts and figures, is the West China Union University on its twenty third birthday.

# Its Beginnings.

Unlike, Melchisedec, it had its beginnings of days, and as the Irish might say, it had many of them. Some, it seems, just happened, others were divinely ordained, others were carefully planned, but doubtless no less divine for that. Whatever may have been the circumstances, the story of its beginnings, reveals a directing providence over us.

In telling the story of its beginnings it will be of advantage to move backwards, first telling that which is last and going on to the first beginning. Each and all of these beginnings might well borrow the language of Genesis, "In the beginning God."

# THE BEGINNING OF ENDOWMENT.

It was after this manner that Dr. Joseph Taylor of the Baptist Mission spoke to the writer of this article: "When you get to New York, please look up a gentleman by the name of Dr. J. Ackerman Coles. It has been reported to me that he likes to give away baby organs. Please ask him to give us an organ. If the baby can be a large one it will suit us all the better." I carried out that request and the Baptist College got its organ. I showed Dr. Coles photographs of the only two permanent buildings then erected. One of them called the Pagoda Tower Building attracted his attention. He fell in love with it and insisted that he should have the privilege of paying for it. He was shown plans of a library. He ignored them and lavished affection on this Tower Building, saying: I want to pay for that building." "But it is paid for," I replied. "It makes no difference," was his answer, "Get the donors off and let me get on." I protested that it was a Methodist building on a Methodist campus, and that he was a Baptist. He answered, "I don't care anything about the Methodist and I don't care anything about the Baptists. I want that building." Two months later he had it, the former Methodist donors agreeing. And later on he showed me a sumptuous volume, one of several, of the first families of New York. "There," he said, "you see you and your University are immortalized." He pointed to a steel engraving of the 'Ackerman Tower Building,' named in memory of his mother, and the story of where it was and how he came to have the building. He followed the gift of that building by a check to the Board of Governors of the University for \$10,000, as endowment for the permanent upkeep and improvement of the building. Thus began our endowments. Later he erected the University Clock Tower and gave the clock and bell. And, finally, he created an endowment

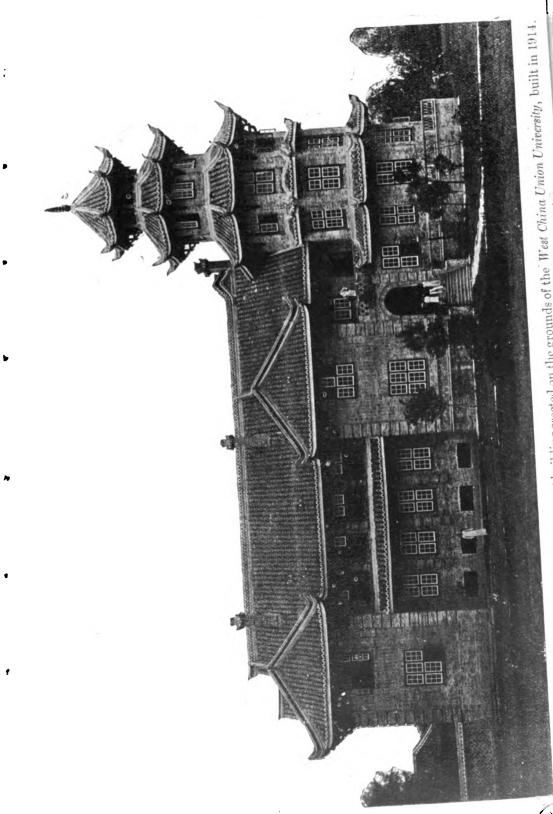
for the permanent upkeep and improvement of our University buildings by assigning to West China Union University one third of his entire estate. As I look about at the decaying temples in China, at the poorly preserved school buildings in this Western province and then look to our own well-kept buildings, I cannot fail in thanksgiving for the beneficent providence that has endowed our present and future buildings, or cease to marvel of what came from an effort to secure a baby organ for a friend.

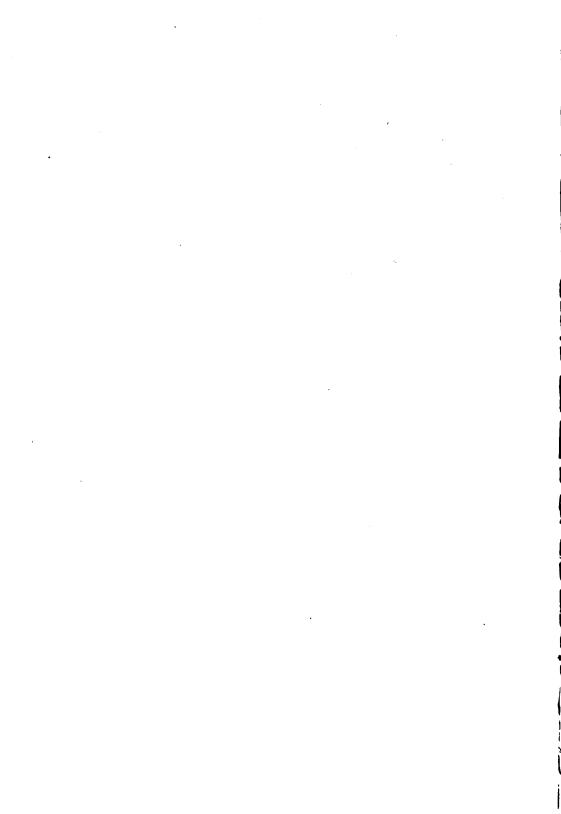
Equally providential it seems was the half million endowment which came to us from the trustees of the Charles M. Hall estate. The first income from this endowment reached us when some of our buildings were without furniture, when all of our departments were imperatively demanding equipment, when psychological and political conditions had made it necessary for us suddenly to add many Chinese to our staff, and when a far greater expression must be given to the nation's cultural studies, and when registration of the university with the Chinese Government had made a much larger income imperative. It happened after this fashion. Said, one trustee, who dismissed his attorneys to give the 25 minutes; My answer was as blunt as the question, "What do you want?" 'A million dollars!" This much we needed and this I asked for. Seen again, a month later as I was enroute to China, he asked: "Would you like to know what we will do for you?" Being assured that I would, he replied: "We are giving you half a million dollars for your Chinese Department and other needs."

#### THE BEGINNING OF BUILDINGS.

In adopting a style of collegiate architecture in harmony with Chinese traditional architecture, we pioneered in a type which has become general in other Christian universities in China. Lack of funds with which to begin building and the decision to initiate union middle school work preparatory to inagurating the University caused three of the missions to move their city middle schools; staff, students and equipment, to the new university campus. Kitchens of future houses were hastily put up for living quarters for members of the staff, and one Chinese type of residence was Three temporary one-story school buildings, artistic in appearance, thoroughly Chinese in construction and type, were erected for school work. These buildings were expanded by the simple process of adding units to accommodate the university when it began its work in 1910. The erection of these cheap plaster buildings, and the lack of funds for more permanent structures, served the valuable function of holding up our building program until a satisfactory type of architecture was created and the campus lay-out determined.

At a meeting of the Mission Boards' representatives in London in 1912 the Board of Governors of the University was formally





organized, and at this first meeting Fred Roundtree and Sons, of London, were appointed University architects. Mr. Fred Roundtree, the senior of the firm, visited the campus in 1913. He developed a type of architecture that combined the noblest elements in Chinese architecture with the stability of the West, producing a style of building which not only won the award, but at once captivated leading Chinese to whom his drawings were shown upon his visit to Three sets of plans submitted in competition were spread before a group of eminent Chinese gentlemen. They were not told which set of plans had won the award. They chose that set of plans that incorporated their own ideas of beauty in architecture and thus confirmed the action of the Board of Governors in making Mr. Roundtree the architect. It was first our dire poverty and later Mr. Roundtree's coming that saved us from "hodgepodge" and gave us the superb Oriental collegiate architecture that has made the campus of this University unique-among China's Colleges.

One visitor has voiced the thoughts of many: "A wonderful campus, a magnificent assemblage of buildings! They must have cost the Boards of Foreign Missions a pretty penny." He saw the beauty, but he missed the wonder. For the buildings have cost the Boards of Foreign Missions, as such, very little indeed. From the very beginning they have been gifts from individuals made directly to the University, through its Board of Governors or through the Mission Boards. The first building, given as a memorial to Bishop Joyce of the Methodist Episcopal Church, was dedicated October 3rd, 1914, and immediately opened for University classes. The building now known as The Ackerman Building was dedicated on the same day. Then came the Whiting Administration Memorial given by Mr. and Mrs. Joseph B. Morrell of Northport, Long Island, New York; then the Hart College, memorial to a pioneer Canadian missionary in West China, given by Jairus Hart, Esq. of Halifax; then the Vandeman Memorial given by the Vandeman family of Indianapolis; next the Scattergood Middle School Memorial given by Mrs. Thomas Scattergood of Philadelphia; then the Atherton Biology and Preventive Medicine Memorial given by the Atherton family of Honolulu. Next in order came the Lamont Memorial Library given by Mr. and Mrs. B. C. Lamont of Aberdeen, South Dakota; the Friends College Building given by the Arlington Trustees of London; the Coles Tower given by J. Ackerman Coles of New York; the Cadbury Education Building given by Mr. George Cadbury of Bourneville, England. These and ten more, including the new Women's College Building, the Bashford Memorial Dormitory and the Liu Dsi-ru middle school Chapel comprise the group of 21 College buildings, and 48 residences that have risen from the temporary kitchens and plaster buildings of 1910.

Whence came they? "The answer to be complete requires, "Your Father knowth that ye have need of these things," and

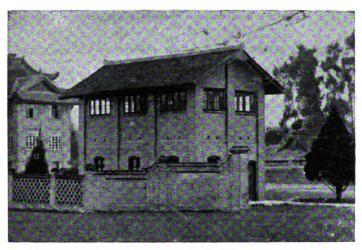
they are here. The reeded group of Central Clinical Hospital Buildings, in connection with our Medical-Dental School, has begun to take form in the initial gifts of Mrs. Benjamin Moore, and Mr. W. A. Notman. When these buildings and others planned will be erected, we do not know, but we do know that when they come, they shall neither be cheap nor tawdry, but fittingly complete one of the noblest enterprises that Christians of the West have initiated in this country.

#### THE BEGINNING OF LAND.

Though having neither the support of Mission Boards nor credits in bank in 1905 we set about finding a site for the union college that was then only in the mind's eye. First we canvassed the city, then in 1906 viewed that fine stretch of land along the river to the west of the Thunder God Temple, and finally our idea came to earth in 1907 on 60 acres of our present property. The Canadian Mission advanced the first cash payment and the realty adventure of making a city of schools began.

I quote from a pen-picture written in the spring of 1908. "The Christian Union University property consisting of approximately 60 acres has been divided and allotted. It is irregular in shape, somewhat similar to a carpenter's square, with one arm extending north end the other west. The northern arm bordering the river was divided near the center (the present North and South Road, see map), the English Friends getting the west and the American Methodists the east section. The western arm was divided by a line running east and west, (the present East and West Road). The section north of the line and near the angle of the square was reserved for the union buildings. This section was mostly outside the purchase, and was bisected by the unpurchasable Liang Fu Kung Guild property, and contained three cemeteries of more than a thousand graves. West of this portion and to the north of the line is the plot drawn by the Baptists. South of the line, and including unpurchased sections, is the Canadian piece and west of that the portion reserved for the Church Missionary Society. Each section is approximately 10 acres."

We moved the dead and "haggled" with the living as we dug the foundations of the Administration building and paid a mound of silver for the piles of earth in front of it. We moved heaven and earth and especially Governor Fuh to get that unpurchasable guild land. We were celebrating when the headman of the guild said: "It shall be yours". We spent weary weeks getting grave removal permits and settling quarrels between competing diggers and keeping them from putting each other in jail. We paid for new burial grounds, which later vanished or were never bought. But through the perseverance of one Saint Stewart, we accumulated



The beginning of the Medical School. The first building, erected 1914, torn down 1922.



The Administration Building (Whiting Memorial) of the West China Union University, as seen from the south end. This building was completed in 1919.



a mass of red-stamped deeds of the "habitations of the dead,"in ones, tens, and hundreds—to level the mountains for you who now travel over them. The additional plots came easily though sometimes costly, as when the gold dollar was below par. "Naboth's" paddy fields still lie acress the angle of that square, unpurchased and seemingly unpurchasable. The divisions of these sections for the Mission Colleges determined the layout which the architect devised, the property committee revised, and some of the missions despised, but which all have come to regard, as the Medes and Persians their laws, unchangeable, as each party has the best. Some things are forever unchangeable. Our roads and buildings are true to a hair-breadth with the cardinal points of the compass, Computed by the Polar star. The north road past Harmony Hall was projected by those who swore by a compass. It was sworn at by those who sighted the polar star and extended this road in front of Vandeman. It is still a bit bow-legged as it crosses the East and West Road, even down to our day, unchangeable.

#### GETTING A CONSTITUTION AND THE BOARDS.

In June 1910 the then "Joint Commission of the University" met in London and adopted with great unanimity and enthusiasm the constitution, which after approval by the Boards of Missions, and the "Temporary Board of Management" here, has continued with only slight modifications, as our constitutional charter to this multi-constitutional or unconstitutional day of transitions. By that 1910 act the Joint Commission sang its swan song, as did the field Temporary Board of Management, for the Board of Governors and the Senate of the University were born, though not fully clothed with power.

The Sentate met for the first time on March 2, 1911, decided the then momentous step that it would elect its own officers, elected them and adjourned. The Board of Governors had reserved the right to elect the president. Following advices from the Temporary Board of Management that the president should be some person who gained educational renown in the United States, Canada, or Great Britain, the Governors sought this man of fame for three years. They then asked the Senate to nominate one of their own common clay. They did, on October 16, 1913.

Such high moments as the London meeting have their labored antecedents. The first of these was in December 1904, when resolutions were adopted by a committee of the then four Chengtu Missions. The second was on April 28, 1905, when appointed representatives of three of these missions, with a China Inland Mission and a Church Mission Society missionary present in official capacity, adopted a scheme for a Christian Union University. This scheme was drawn so that all might participate as they were able.

It provided for a single institution under unified control. bership on its boards of trustees and management was in exact ratio with shares contributed, with provision barring any one mission having half the control. A share was \$5000.00, or £1,000 with a teacher and his house. This carried the day at the Advisory Board meeting of West China mission bodies is 1905 and was forwarded to the Boards of Missions in the home lands with high (see copy of first constitution in the Methodist West China Messenger and the West China Missionary News, 1905). In childlike faith that this proposal would prove acceptable to the Board of Missions we set about finding a site. We examined properties in the city and in all directions outside the city of Chengtu. It was on one of these journeys outside the city that we consulted together regarding the action of the several Mission Boards and what must be done in view of their actions. To our great regret it was discovered that not a single Mission Board had approved the proposal. university or college in far-off Western China was regarded as entirely too utopian for serious consideration. That stunned us, but it did not floor us. We took counsel with each other, we prayed with each other, asking, "What now can we do? The question "Does your board revealed the way that we have since followed. plan to do higher educational work in Szechwan". The answer 'Yes, in all probability''. "Does it tell you where to locate your institution, where to buy property, what to teach and limit the help you may give or receive from a missionary of another board?" The answers were quite generally, "No." "Then by high heaven here is the way. We will locate this college or university on the four corners of a street. You teach physics, he will teach chemistry, you teach history, and you teach languages, and so we will go forward—sending our students across the road and our teachers across the road as the circumstances require. We will have mission colleges joined in a union university. But since we believe that we will get together and get the mission boards together let us also buy and reserve the center of the square as the heart of the university."

We now proceeded with another constitution drawn to incorporate this idea. We discovered that it had certain characteristics not unlike the Oxford plan, and that the history of the United States furnished a hopeful analogy that a genuine union would eventuate. Careful to guard the independence of the unit, we have constantly moved toward centralization where efficiency called for it, while maintaining a high degree of mission college autonomy. There was a place in this program not only for mission boards, but for the participation of universities of the West. Efforts were made to bring Oxford and Cambridge, Northwestern and Chicago and Toronto into the project. Profiting by the experience gained with the former constitution we did not send this to the home lands. Dr. Hodgkin carried it to England and I went with it to America

determined that the second constitution should not share the fate of the first, and that the Boards of Missions should be real partners The failure of that first constitution to win in its workings. approval, and the form which the second constitution took in order that a beginning might be made, explains the organization and the most unique and valuable features of the West China Union University. It marks it off as distinct from all other projects of its kind in China or elsewhere so far as we have information. Experience has taught us that by one happy stroke, so masterful that we are prepared to give Heaven the credit for it, we capitalized the denominational interest and support of each mission board in its own college, and at the same time created a centralized "push and pull" that has brought us over a million dollars for the central "God moves in a mysterious ways His wonders to idea alone. perform"!

Though the plan was good and defensible it travelled a hard road. Getting the American Methodists was easy. I said: "You have a college there now. You cannot staff it properly. Why not accept a lift from others who are willing to supply the lift?" "Very well," came the reply. "Go ahead, but remember we cannot be responsible for any financial obligations in connection with it." The Baptist Board was next tried, and here the question was asked by one member; "You know that we stand for some things. Where do the things that we stand for come in in a proposition like this?" The answer was: "Not at all if you do not come in; very little if you come in in a weak way; in a large way if you will come in in a large way." They came in in a large way, with magnificent support given by those early friends of the University, Dr. Barbour the Board's Secretary, and Mr. Mornay Williams, and Dr Ernest D. Burton.

Getting the Canadian Board was a far more difficult task, for they had fine prospects of establishing a Canadian Methodist College in West China, and their venerable secretary and general superintendent were committed to this project. Invited to come to New York to consider the plan with the two American Boards they replied that they must attend their Annual Council. Continued efforts met with refusal. They almost seemed to say: "We have the money, we have the men, and we will have the college too." Only when we wired: "If you cannot come to New York, the Baptists and the Methodists will go to Toronto," were they moved to take the lesser of two evils, and arrived. It was a great day with nothing done, except to pass a last minute resolution proposed by Dr. Goucher, later the able chairman of the Board of Governors, that called for another meeting of five members from each of the boards, to which meeting the Friends of England were invited to send a delegation.

Dr. Hodgkin had done his part well in England. The delegation was appointed and were soon on the Atlantic, putting the

second constitution in improved form as they travelled to New York: That meeting in New York was a memorable one. All four boards were fully and ably represented. The spirit of unity dominated their sessions as they worked upon the plan and constitution. With enthusiasm similar to that in West China they adopted it and recommended it to the boards of missions. boards, in their turn, approved it and appointed delegates that met in London and organized the Board of Governors of the West China Union University. In West China we moved with them, or just a step ahead of them, opening the West China Union University in the autumn of 1910.

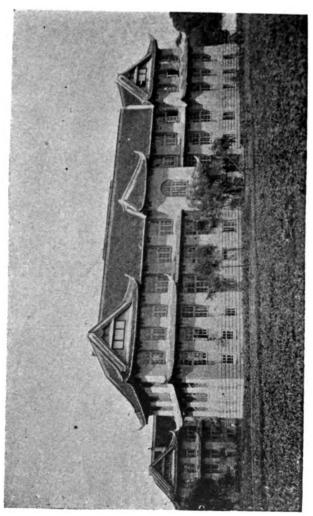
### GETTING MISSIONS AND MISSIONARIES ON THE FIELD.

As already stated, a Chengtu committee in December 1904, endorsed union in education. A representative mission committee, in April 1905, drafted a constitution for a union university that had still to run the gauntlet of the missions and their boards. The West China Advisory Board, representing all the missions, was due to have a meeting on May 5th. The Chengtu committee appointed Dr. Omar L. Kilborn and myself to appear before this Advisory Board and win them to the support of the project. This subject that held the floor of the Advisory Board for three sessions and part of another, followed by an open meeting of the entire community. I quote from the Secretary's Report to reveal the spirit of that meeting: -

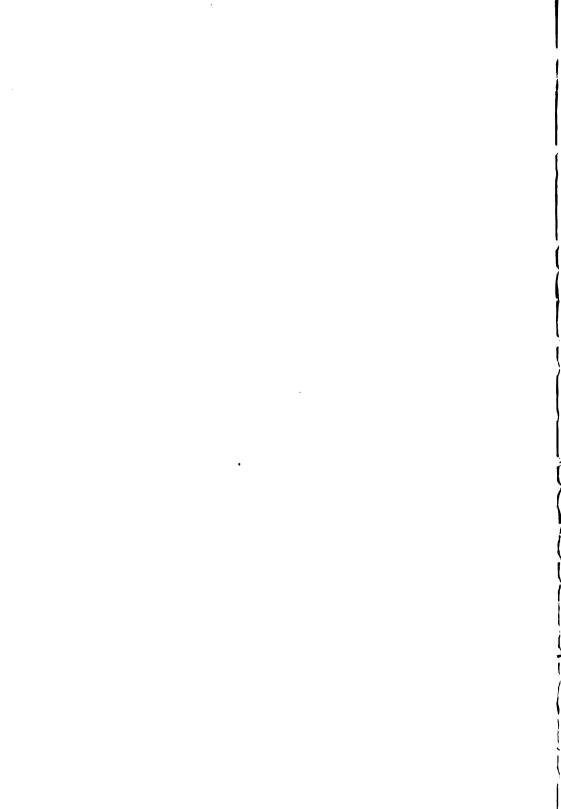
"There could be no more impressive scene imagined than that which took place each day as these nine representatives from various districts of this province met together and discussed, even as one family, the great interests of the Kingdom of Christ. The rallying cry of the Board of 1905 was a Union Christian College University for West China. Three sessions of three or three and one-half

hours each were devoted to this most worthy object.

"May 5th a statement was presented to the Board by Dr. Kilborn and Rev. Joseph Beech in a manner that enlisted the interest immediately of every member. As the discussion proceeded there came over the assembly a feeling that the Head of the Church was present and the Church was entering upon a new era in West Notwithstanding the great difficulties in the way, the power manifested to Moses on the banks of the Red Sea was present to inspire confidence and the Board resolved to express its general approval and place on record its hearty sympathy with the principle of Union in educational work in West China. It also resolved to hold an open meeting May 8th, for a thorough discussion of the whole scheme. Monday evening a most representative meeting was held, as, in addition to the regular members were Rev. J. Taylor, American Baptist Mission; Rev. J. Beech and Mr. J. W.



The Medical-Dental Building as it is today (1934). The two end wings have been completed, but the central section has not yet been built.



Yost of the Methodist Episcopal Mission, Reverends Endicott, Kilborn, Stewart, Cox, Mortimore and Misses Brackbill and Swann, of the Canadian Methodist Mission; and Mr. Davey of the Literary Diffusion Society. Though difficulties were freely stated and other plans advocated, the feeling of the meeting was that union in one central university would best promote the Christian educational interests in West China. The chairman, Rev. A. T. Polhill, in the name of the Board, welcomed the members of the community, and opened the discussion by saying that the idea of a university was entirely new to him, but as he had listened carefully to the scheme he could say that he was each day more convinced of its importance, and though difficulties would present themselves he did not think that they would prove insurmountable, and the uniting of the missions in such an institution he thought was most desirable; that personally he could most heartily endorse the movement.

"Rev. Claxton felt that to interest the Board to the London Missionary Society it must be shown that there is already a union in educational effort and that, as a preliminary step toward union in the formation of a Christian University in West China, an endeavor should be made to induce all missions in West China to agree upon a common course of study from elementary to post-graduate, and that an examination body of one representative appointed by each mission should be formed.

"It was later voted: (1) To establish a union educational board, and (2) To promote the organization of a union university.

'The Board unanimously resolved that after hearing the amended scheme for an educational union in West China having for its aims the unification of all educational work and the founding of a Christian University at Chengtu, the Board approves the same generally and urges upon the various missions the desirability of taking prompt action along the lines recommended.

"The passing of this resolution impressed the Board with the feeling that God was in their midst and that some great reviving blessing was on the eve of being poured out upon His servants in West China. These feelings were voiced by the representatives of the Friends Foreign Missionary Association and the chairman, the former exclaiming, 'We cannot but express our praise to our Heavenly Father for the manifest realization of His presence which we have experienced at this meeting of the Board.'

"The unity which has prevailed throughout all the discussions and the guidance we have received in the various decisions arrived at, particularly in regard to union educational work, are cause for devout thankfulness.

"As the members of the Board return to their respective missions may they be enabled to convey to their fellow-workers some of the earnest desire for the furtherance of God's work in this land which has been so evidenced among us during the past few days,

and also urge upon them the claims of the proposed united educational effort, with the endeavor to bring all missions into active participation for the accomplishment of this further step toward the much desired union and cooperation of Protestant Missions."

This meeting sounded the danger that we had sought to avoid, namely that having started out to create a university we might be sidetracked and end in a system of primary schools or a course of study. We maintained our position that a system of education had not developed and would not develop unless we had a union college or university to demand it and to train teachers for it. Strange as it may appear we needed a university to get a primary school system. The university idea kept the floor and finally won the day, but the need for a system of primary and secondary education as a foundation for it also won, and led to the appointment of the first committee on primary and secondary education ever appointed in West China. Later on this committee developed into the West China Educational Union that in 1925 enrolled over 32,000 scholars. It was directed from the University, its secretary being a member of the university staff, supported by the Board of Gover-That Union, together with the university and its associated normal schools, surpassed in rapidity of growth and efficiency of method any known movement of missionary education of similar character anywhere in the missionary world. The passing of that Union in 1926-27 as a result of government demand for registration of mission schools under government control has been, and will long continue to be, something of a tragedy in Christian education.

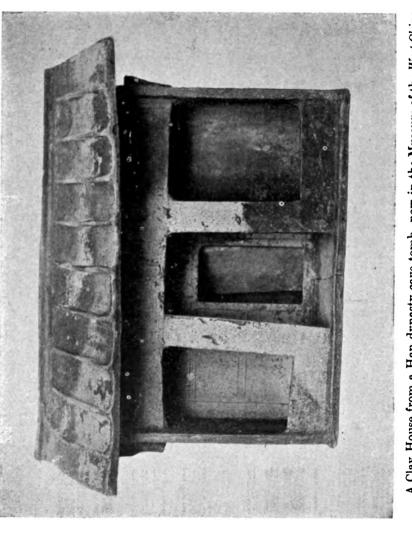
By 1910 eleven students were prepared for entrance to the The National Revolution of 1911 stopped classes at University. the University, but they were later on continued in the Canadian Hospital in the city. Attempts to carry on were finally ended by the exodus of missionaries to Shanghai by Consular order. Returning in due time, we graduated two students in the first graduating class in 1915, one in 1916, one in 1917, one in 1918. That was the beginning of graduates. The rest of the story is told in the list of graduates in the back of the University catalogue. As this article goes to press the graduates, including the Class of 1934, number 265.

# THE FIRST BEGINNING.

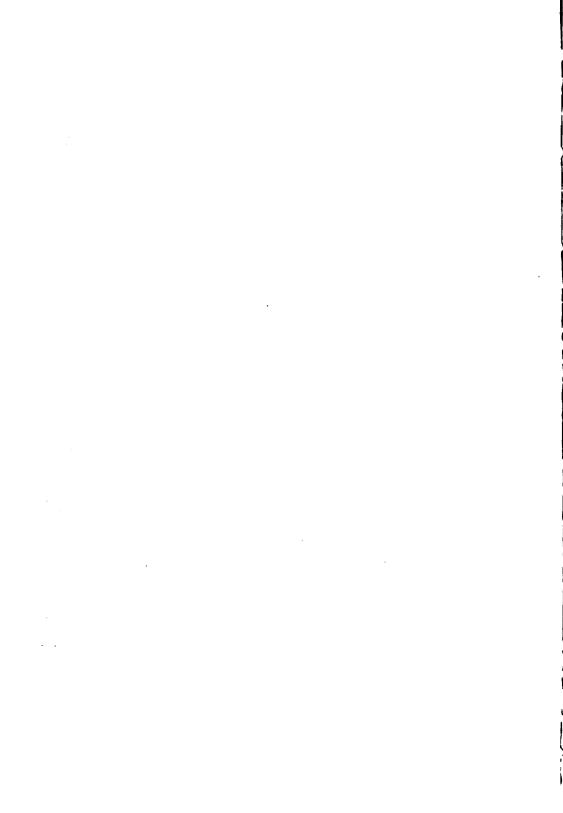
In the early autumn of 1904 the Methodist Episcopal Mission had established and begun its college work in a college, so-called, located near the Temple of Learning in the city of Chengtu. We had a faculty of three missionaries and two Chinese teachers with no immediate prospect of others being added. A few doors beyond this college the Chinese Government was erecting a school for higher The initial plans and progress of this institution made it increasingly difficult to lift up our college sign or our heads. One

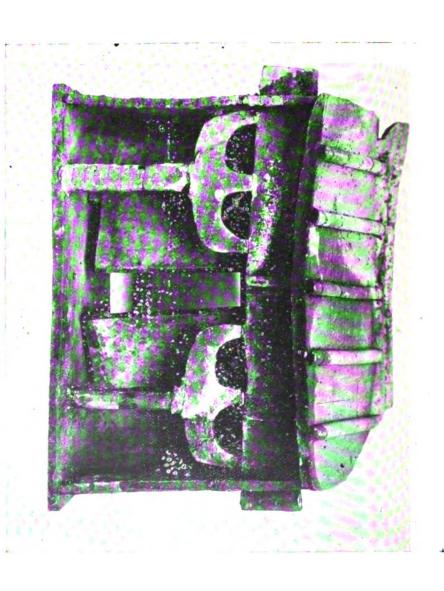
day as I returned from the college to the Methodist Episcopal compound Dr. Canright remarked: Mr. Endicott has been here. He said that they were getting out a whole boat load of new missionaries and that if the American Methodists wanted union, they were now ready for them." I replied: "Did he mean that?" The answer was: "He said it, but evidently intended it for a banter or a joke." There had been proposals of union or co-operation between these American and Canadian Methodists in earlier days that had come to naught. A few days later Dr. Kilborn visited the Methodist compound, and I said to him: "So your Mission is ready to go into union with us now that you have these new missionaries coming, are you?" He replied: "Who said so?" I answered: "Mr Endicott." And there we stopped and talked for about an hour on the possibility of a union college. I have a sample of the dirt taken from that spot on which we stood and had the first conversation of a union college in Chengtu. We adjourned to meet at the Canadian Mission compound a few days later. At the missionary prayer meeting just prior to this meeting Dr. Davidson of the English Friends said to me, "I hear you are having a meeting with the Canadians to talk about a union college. Will there be any objection if I come?" He had the invitation, as did also Mr. Vale of the China Inland Mission. Two evenings later Dr. Kilborn, Mr. Endicott, Mr. Stewart of the Canadian Methodist Mission; Mr. Davidson of the Friends Foreign Missionary Society; Mr. Vale of the China Inland Mission; Dr. Canright, Mr. Yost, and myself of the Methodist Episcopal Mission were present at the home of Dr. Kilborn to consider this subject. I do not remember if there was a chairman. What I do remember is that I was asked to make a speech on the proposition of a union college, and I remember that I had no speech. But I told them of my conviction that Christian Missions would not succeed in college work alongside the government institutions unless they joined forces and equalled government standards, and did the work in a manner commendatory to the Christian movement; and that we should without delay select a site adjacent to one of the Missions or at some neutral site and begin college work at once or find ourselves hopelessly outdistanced by the rapidly expanding Imperial College. The next speaker dwelt upon the method of union, suggesting that there be more than one college. one at each Mission, that the students and teachers could "shuttle" across the city to their classes. Being children of our generation we appointed a committee to continue the talk, which committee was sometimes attended by Dr. Squibbs of the Church Missionary Society, and on occasion by Mr. Openshaw and by Mr. Taylor of the Baptist Mission. The proposal to locate a college at the American and Canadian Missions and "shuttle" the students or teachers across the three miles of city streets was soon discarded as impractical since there were no shuttle facilities. We worked for a union plan and sought a neutral union site.

The idea now went on its way to the December meeting of 1904 already mentioned, and it still goes on. So, it began in a joke? No, back of the joke there was a divine discontent that Christians were starting competing colleges that would soon be outclassed and some day disqualified by the government colleges and standards. That discontent bred desire for something better. That desire grasped at the first straw offered. Joke it might have been but of this I am convinced: "In the beginning was the Word."



A Clay House from a Han dynasty cave-tomb, now in the Museum of the West China University. This house was for the use of the deceased person in Hades. The custom persists today, but instead of placing a clay house in the tomb, a paper one is burnt with the belief that burning transforms it into one usable in Hades.





were very common in Han Dynasty architecture, and are found all over China today. University Museum. The two braces illustrate the persistence of custom. Similar braces A small Han Dynasty cave-tomb Earthen-ware House, now in the West China Union

# PERSISTENCE OF CUSTOM AS ILLUSTRATED IN THE COLLECTION OF HAN DYNASTY CLAY IMAGES IN THE WEST CHINA UNION UNIVERSITY MUSEUM.

# D. C. GRAHAM.

During the past milleniums the cultures of the world have undergone a gradual process of change. It is probable that this process has always been going on, and that wherever there is life there is change.

Yet one is often surprised by the persistence of custom. Customs, practices, and implements often continue in use long after they have ceased to be useful. In later times very different reasons for their existence may be given than at the beginning.

In recent years many books and magazine articles have emphasized the fact that China is changing very rapidly. The fact is that China has always been a changing China. In bronzes, paintings, jades, porcelains, and other cultural objects the types typical of the different dynasties can often be easily distinguished by the expert

Yet in China there are many striking examples of the persistence of custom. The foundation-stones of Chinese culture, such as reverence for learning and disapproval of war, respect for and the dominating influence of parents, filial piety as the cardinal virtue, the family as the social unit, approval of good conduct and interest in practical ethics, the use of jade as the precious stone, and of hemp and silk, were present in the Cheo dynasty, and have not fundamentally changed since that time.

In the West China Union University Museum of Archaeology, Art and Ethnology, there is an excellent collection of Han Dynasty clay images and pottery. Some of these have been purchased from the Chinese who have collected them, and others have been found in situ in Han Dynasty cave-tombs. This collection is very valuable to science, and throws much light on the Han Dynasty social and religious ideals and customs. Among them there are many illustrations of the persistence of custom.

The museum possesses one of the finest Han Dynasty bricks in existence, found in situ in a Han dynasty cave-tomb. On one side is the image of a horse and a chariot, and also that of a tile-roofed house. On the house are two U-shaped braces. The museum

also possesses a terra cotta house on which there are two of these braces. This type of brace is seen in pagodas, memorial arches, temples, and houses all over China. The simplest form is that of a capital U, but for artistic purposes there are many variations.

One image is that of a woman or a girl carrying a baby on her back. This is the most common method of carrying babies in Szechwan today, a plain instance of persistence of custom.

One of the commonest images found in a Han Dynasty cavetomb is that of a servant with a broom and a dustpan. The servant wears a cap without a rim, and holds the broom in his right hand and the dustpan in his left. This dustpan, which is made of bamboo and called a ts'o chi is still very commonly used in Szechwan. One of the images is that of a man with such a ts'o chi in his hands, apparently winnowing wheat. Another image is that of a grasscutter, for he carried a ts'o chi in his left hand and a sickle in his right.

Another thing that has persisted in a remarkable way from ancient times to the present is the straw sandal. This can be seen on the feet of a number of the terra cotta images of men, most of whom are servants. On some of the images the sandals are very distinct. Even the binding cords and the knots can be clearly seen. The sandals very closely resemble the kind that is most commonly used in Szechwan today.

There is evidence among these images that the ancient Chinese were lovers of music. There are two complete images and several fragments of men playing the seven-string, lute, which can still be bought in Chengtu. One man has a stick in his hand, and with it he is beating a typical Chinese drum. Another is beating a drum with his open hand, and the happy smile on his face shows how much he is enjoying the result.

There are three men holding birds which are evidently too small to be falcons. The Chinese are still fond of birds, and many of these feathered creatures are to be found in Chinese homes.

In China one occasionally sees what is called a ch'ien shu **持**我 or coin tree. It is made of brass, and resembles a tree with numerous branches. On the limbs are coin-like charms, and images of imp-like human beings. It is believed that the owner, if he shakes the tree, will be able to get rich, or at least to enjoy financial prosperity. In the museum is a Han Dynasty ancestor of the coin tree. It was actually found in situ in a Han Dynasty cave-tomb. There are coins on the ends of the limbs, which are typical Han Dynasty coins, and the imps can be plainly seen. This is beyond doubt the oldest existent ancestor of the coin tree. Incidentally it furnishes additional evidence that the socalled mantsu caves or caves of the barbarians are actually Han Dynasty cave tombs.

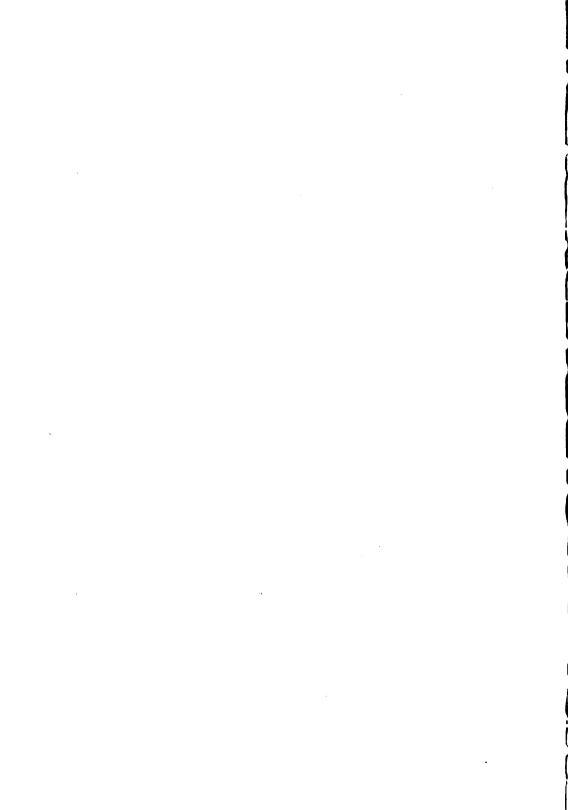


Left: A man ceating a drum.

Centre: A woman carrying a baby on her back.

Right: A man with a bow.

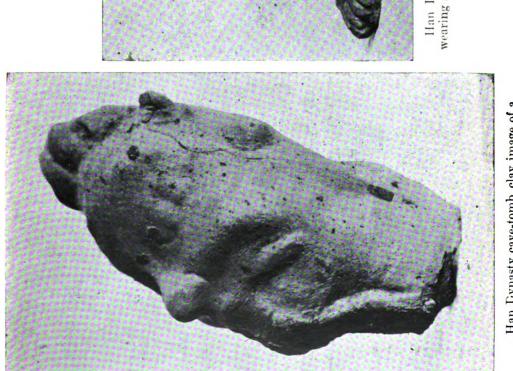
Han Dynasty cave-tomb terra-cotta Images in the West China Union University Museum.

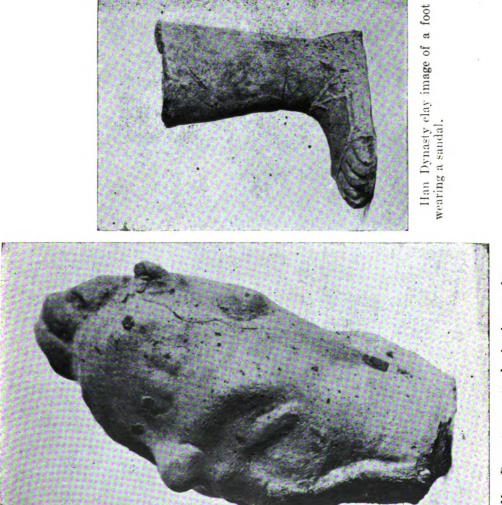




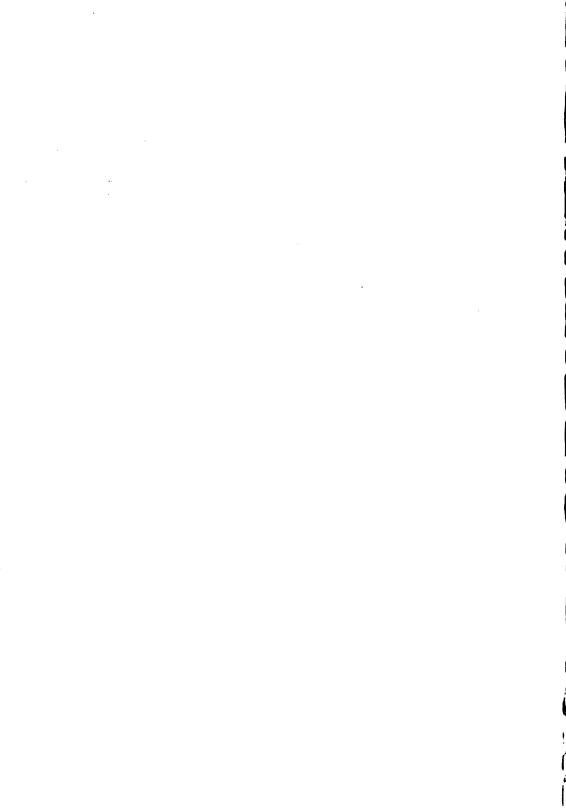
Servants with brooms and dustpans. The dustpans are exactly the same as the present widely used type made of bamboo. Museum of the West China Union University.







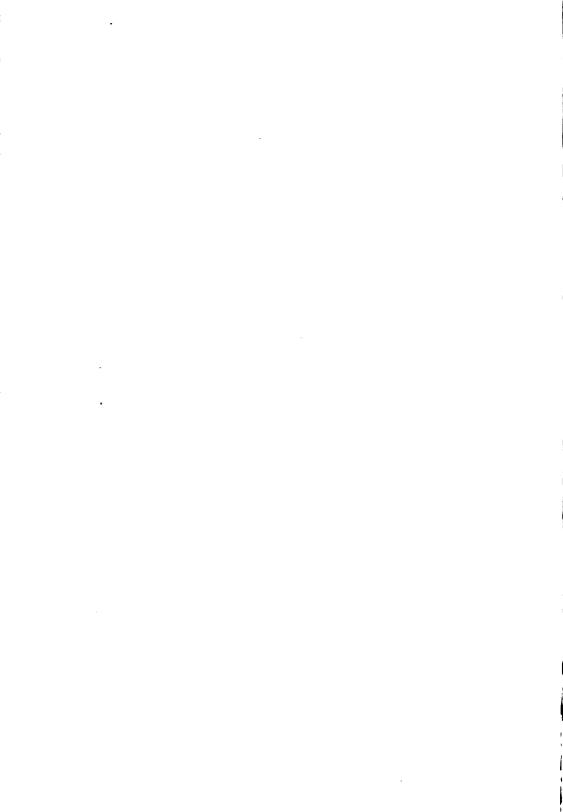
Han Dynasty cave-tomb clay image of a mean with tusks and protruding tongue.





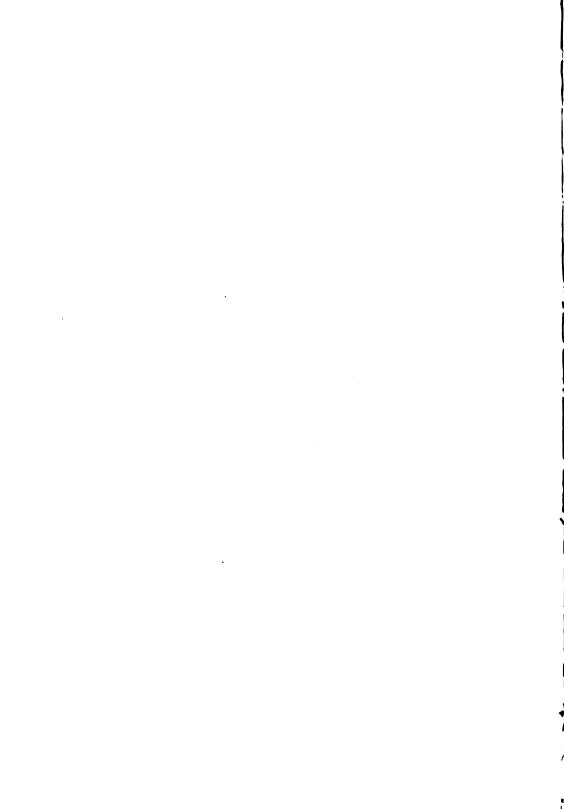
Rught: A man beating a drum with his hand.

These Han Dynasty cave-tomb images are in the Museum of the West China Union University.



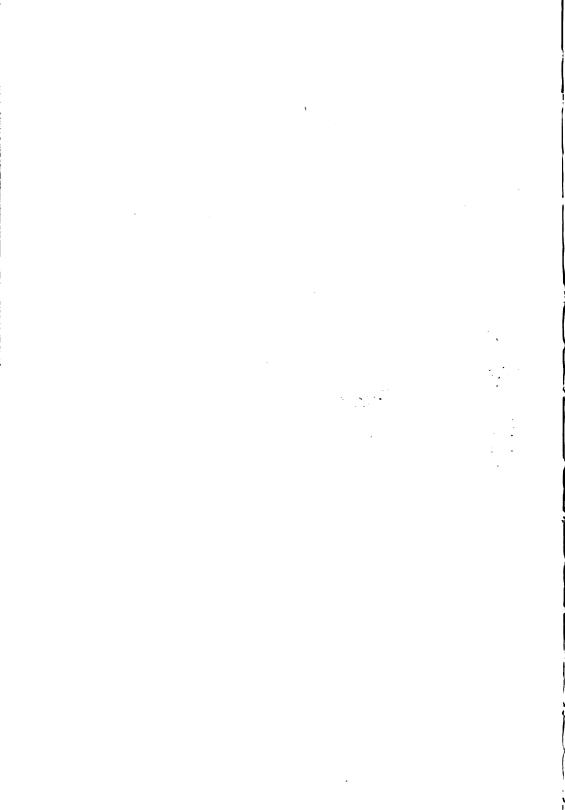


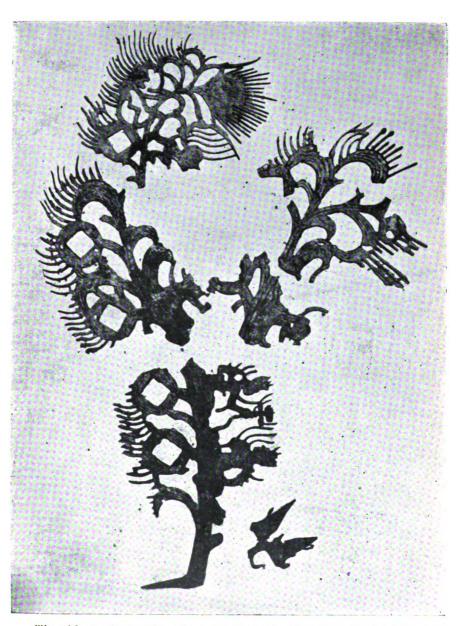
Han Dynasty cave-tomb clay images of people holding their hands in their flowing sleeves. West China Union University Museum.





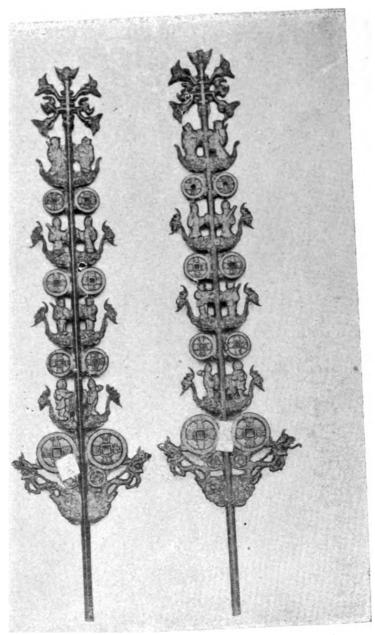
Han Dynasty cave-tomb clay images of people holding birds in their hands. Museum of the West China Union University.



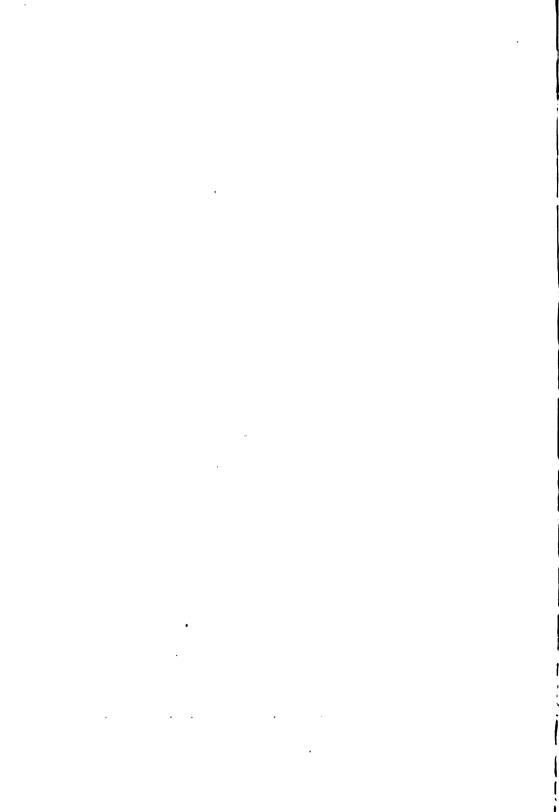


The oldest coin tree in existence, now in the West China Union University Museum of archaeology. It was found in situ in a Han dynasty Chinese cave-tomb by Rev. T. Torrance and Prof. D. S. Dye. On it are Han dynasty coins and images of men. it is the ancestor of the present-day coin tree and probably older than any other in existence by at least 1500 years.





A pair of Modern Chinese Coin Trees, now in the West China Union University Museum of Archaeology. On them are charm coins and images of men. They are made of brass. They are believed to have magical power to enable the owner to acquire wealth.



# AMONG THE FOOTHILLS OF THE CHINESE-TIBETAN BORDER\*

#### A. J. Brace

Kwan Hsien is the natural point of departure for trips into the interior country. Travelling from here westward you are soon out of China proper from an ethnological standpoint. ing the tortuous course of the Ming River KII with its mile high cliffs, you travel thru the Border Land of China and Tibet over high mountain passes, meeting many different tribes of mixed In a week's foot-travel you are into the "Land of the Lamas", and can visit lamaseries of the Yellow, Red and Black nects. Near Wen-Chwan 汝川 the Wasa 瓦斯 tribe has a mountain fortress under So"T'u Si" 土司 where you can view the immoralities of the Black or Bon sect. Tsa-Kao-Lao 雜谷腦, and Su-Men-Kwan 四門刷 have excellent Yellow Lamaseries. Once the Lamas were truculent and surly, refusing admittance to all and sundry, but under the kindly influence of Pastors Mao and Ren we have noticed in recent years a real relenting and unbending as they have come to the Mission for medicines, always dispensed free to them.

Kang Kang Chai 岡岡寨, only seventy li North of Lifan, has a very fine Red Sect Lamasery with only about forty Lamas. Here once we visited the old Abbot, nearly 80 years of age, who was very kind to us and invited Mr. Plewman to photograph him in robes of state. Nearby we had the privilege of visiting a Living Buddha, a boy about ten, who had been selected by the gods to carry out this important role. I have made many visits to this lamasery to study the very fine Wheel of Life painted in colors on the Lamasery front wall. At the center the serpent for cruelty, the eagle for lust and the hog for ignorance—the three cardinal vices—by biting each other's tail keeps the wheel revolving, while the six degrees of sentient beings are born and reborn. Tanha, the Monster of Desire and Selfishness keeps his hold on the wheel and controls its revolutions. Thus the petitioner turns his wheel from right to left, or clock-wise, and mumbles his prayer of six syllables Om-Ma-Ni-Pad-Mi-Hom. Abbe Huc sees Sanscrit origin in the prayer. Om, of Hindu divinities; O, of Siva; and M, of Brahma. This mystic participle is also equivalent to the interjection OI and expresses a profound religious conviction; it

<sup>\*</sup>Part of a lecture delivered before the Society, October 21, 1933.

is, as it were, a formula of the act of faith. Mani signifies a gem, a very precious thing. Padma is the Lotus, while Padme is the vocative of the same word. Hom, is a participle expressing a wish, a desire, and is tantamount to our Amen. The literal sense implies, "O Thou Gem in the Lotus. Amen". The six syllables express the 6 classes, angels, demons, men, animals, birds and reptiles. Living beings, by continual transformation and according to merit or demerit, pass about in these six classes, until they have attained the apex of perfection, when they are absorbed and lost in Nirvana. The gem, being the drop of pure crystal water at the heart of the lotus, is the emblem of the perfection of Buddha, and so the prayer expresses the desire for this purity of Buddha and for absorption, and may conveniently be paraphrased, "Oh, may I obtain Perfection, and be absorbed in Buddha. Amen."

Here at Kang Kang Chai, they showed us a great prayer wheel, 12 feet high, and enclosing all the 108 volumes of the sacred Buddhist canon. There were prayer wheels operated by wind and water; and prayers fluttered on prayer-flags night and day. Here too the old Lama scholar showed me a great picture of Nien Wang 图王, Ruler of Hades, and explained to me the meaning of the scales in his hands. He uses black and white balls in the underground lodge, black balls for demerit and white for merit. records are kept, and a preponderance of white balls means Heaven. but the black balls mean Hell. You may get your chance in the lowest of the 33 Heavens if you have enough white balls, but if you were unlucky enough to be born a woman you can't get to Heaven at all, but are consigned to Hell until you get a chance to be reborn a man. This may be a priestly scheme of retribution, because Tibetan women have so much power in this life in their matriarchal system of polyandry.

From Kang Kang Chai we climbed up through a forest of oak then tamarac, larch, birch and pine trees to a height of 12,300 feet, when we got above the timber line, but found snow and a fine lake of 5 or 6 English acres in extent at Niu-Peng 牛棚, 13,100 feet above the sea. We found edelweiss at 12,000 feet and above. In the near vicinity was a veritable Alpine garden paradise with rhododendron, hydrangia, acacia, primula, gentian, clematis, or-

chids, jack-in-pulpit, wild rose, honeysuckle and arbutus.

We found medicine diggers at Niu Peng, tribes people digging for ginseng and other valuable roots for twenty-five cents per day. The roots are shipped to Shanghai and treated for foreign trade. Men and women lived together in a small miserable shack with a yak-dung fire burning in the middle, which smoked the place until our eyes stung; and at first we were nauseated by the pungent odor. However we soon became accustomed to it and accepted their kind offer to partake of bowls of hot milk mixed with their Chin-Ko-Mei-Tze 青绿发子, a kind of barley meal. After the hard climb and in the inclement weather of snow and ice on this August

day we found the meal very comforting and satisfying. We slept here in a neighboring shack that leaked badly. We all had umbrellas up in bed, but still the snow and sleet drove in and we were not able to sleep much. We were up at daylight and made a dash for the lake. We had no desire for a swim although that had been one of the objectives; we walked about the frozen edges and I had a morning wash, which went only as far as face and hands.

Our carriers had suffered a good deal more than we had, the cold and altitude affected one quite seriously with heart trouble, and we thought he was going to die, but a strong libation of spirits saved him. They threatened to leave unless we struck for warmer levels. We wanted to make the pass a thousand feet and more higher, but were informed that enemy scouts of the Heh Shui (Black Water Tribe), 黑水, were holding the pass in strength, that was enough for our men, so we retired gracefully.

We descended rapidly and dropped over a mile in altitude in five hours. The carpet of flowers and the well underbrushed oak forest seemed welcome again, and we were soon in the comfortable lamasery guest room enjoying buttered tea and their special brand of tsamba. In the evening hour before sunset the lamas worshipped in the great hall. They gave us a great concert of antiphonal singing that we shall remember for long, nor shall we soon forget the vivid scene of the semi-darkened hall, the dark visaged idols resting in the shadows, and the long lines of men and boys swaying as they sang, the men with deep rich bass voices, the boys replying with clear soprano voices.

The lamasery is the community center in this intriguing Border Land. Each family provided a lad for the priesthood, so each has a personal interest in the lamasery. The lama is the priest of the family, who as professional magician is to the laymen the sure bulwark between humanity and a capricious, unfriendly spirit world. Also this same institution is the center of all culture, trade and social functions. As Mr. Edgar puts the case in his usual incisive manner, "Nature, her operations uncertain as to time, and merciless in action, has castigated these poor people severely. Hence with the prevailing ignorance of cause and effect we find them very superstitious, and to see in every adverse occurrence the spite or ill-humor of uncongenial spirits. To understand, therefore, the nature and activities of these unseen forces, and to fortify themselves against their attacks entails an enormous expense, and demands an army of professional priests and exorcists." These pregnant observation let us a little into the secret of the influence of climatic and geographic control.

In this area, which is the natural summer playground of many members of our Society, the headquarters is Lifan, where the Canadian Church established a Home Mission center about fifteen years ago. Yang "Sheo Pi," 楊守備, Headman of the Chu Tze Ten 九子屯 controlled sixteen Chai Tze 寨子, or tribes villages.

The Head-man represents the Chinese Government and lives in a Ya Men 衙門, or magistrate's residence, in one of the "fortresses." From time immemorial it has been the custom for the Head-man to marry a Tibetan princess. This has pacified the Tribes and made them satisfied with their Chinese overlord, for in the usual way of natural selection this has resulted in the "Head-men" now being more Tibetan than Chinese. The "Head-man" had a most difficult role to play, because as middle-man between the Chinese officials and the Tribes people he must find the necessary taxes and at the same time keep the pressure from being too severe on the people. Many a good man has been crushed by the system. Kao Sheo-Pi, 高守備, a good friend to many of us, and an able man, was shot at the instigation of officials because he opposed the opium growing that brought the taxes but impoverished and enslaved his people.

This is the area that has lately felt the tragic impact of the worst earthquake for over one hundred years. Recent letters from Pastor Mao reveal that for several weeks tremors have been experienced. In one of the "Sixteen Chai Tze" of the Ju Tse Ten, over forty families were living when the earthquake caused the side of the mountain to heave engulfing the whole "chai tze;" only three families escaped death. Another village was buried, and the resultant land-slide changed the course of the river. Many of the historic towers have been levelled to the ground. Even the beautiful gilded tower of the Tsa-Kao-Lao Lamasery has been almost

Our last visit to Er II ua Chai, 二瓦葉, the headquarters of the son of Yang Sheo-Pi, now ruling in his father's place, was one to be remembered. The princess arranged a Tribes dance, and an exhibition of Tribes folk songs, all staged in the great underground kitchen of the ya-men. The dancers are refreshed with sweet home made wine drawnhot from a big cask through long bamboo tubes. The gyrations of the dancers for hours on end make the wine cask a welcome source of liquid refreshment.

destroyed. Much loss of life is reported in the area.

One most fascinating easy side trip from Yang Sheo-pi's fortress, that can be made with a minimum of expense and time, is the visit to Peh K'ung Si, 白玄寺, The Temple of Pure Emptiness, or the "Temple of Non-Desire" as Buddhists would rather call it.

Yang Sheo-Pi loaned us a good guide, and we climbed in the afternoon to a Chai Tze called Lu Hai Chai, 最海溪, the "Fortress of the Green Sea". We spent a comfortable night here, and at daylight started the steep climb to the summit of the range where we could see Peh K'ung Si perched bravely on the ridge. By seven O'clock we made it, at an altitude of 12,500 feet. All about us were fields of edelweiss, and nature was never mere beautiful. The sun shone brightly and there was hardly a cloud in the sky, and my, what a rapturous sight met our gaze when we reached the highest point. Away to the west through a purple haze loomed

up the great ranges of Tibetan snow mountains, with Min-ya Kang Ka towering above them all, like a sentinel keeping watch. Then to the south stood Sueh Lung Pao, 睡能堡, "The Sleeping Dragon Castle", and it looked the part not very high, probably not over 15,000 feet, but completely snow covered, and its summit like a cone slightly depressed in the centre, resembling a volcano covered with snow. With the sun shining full upon it it looked a glorious mass of snow with glacial ice glinting and flashing like a real love dragon rather than the Sleeping Dragon.

After absorbing the sunshine and revelling in the unusual mountain scenery we turned our attention to the temple we had come to seek. At close quarters it seemed a small unattractive squat thing of little beauty. Distance had lent enchantment to the scene. Only one lone lay priest was in charge. He could not make known to us the strange inscriptions on his temple, but what he lacked in learning he made up in piety, for one of his first questions on our approach in the early morning was, "Is your heart pure? If not are in danger from the savage lighting." Then he proceeded to emphasize his caution by indicating the two temple pillars that had been twisted and shattered in a recent thunder But the poor old priest seemed anything but pure himself, and carried on his person some 57 varieties of "China's Millions", which he probably unwittingly shared with us, much to our discomfort. But we were interested in the conglomerate religious phemomena before us. Undoubtedly here was Buddhist temple with the name, Pch K'ung, - "Pure Emptiness - Vacuity - Non-desire" -- whatever you will. Outside hung prayer flags of the orthodox sect of lamas with the seal of the Head Lama attached. Here too was a Chinese spirit pole and spirit lamp. Yak horns were hung about the building, white stones of quartz were worshipped inside, and phallic emblems were on exhibition.

We coaxed the old man to tell us all he knew. money had the desired effect of getting him started, but he evidently had little authentic information. The three great quartz stones he averred had flown out of India, and were deposited on the ridge They had been worshipped for many years by Lamas and tribesmen who came from Somo, the Heofan and the Bo-Lo-Tze; these had brought juniper branches and burned them in sacrifice. Then the Tribes people, under the influence of the Lamas, about twenty years ago had raised money and helped build the little temple to shelter the lucky stones, which are probably of meteoritic Behind the three stones are the usual three "pu sa's". The Center stone and largest is called, Peh K'ung 白本 Right is Pek Lang, 白祖, and Left is Peh Shui, 白水. In a side room Kwan Yin Pu-Sa, 觀音菩薩, resides for women who come to pray for babies and bring small clay idol babies to rest beside the Kwan Yin until their prayers are answered. On the opposite side is an idol, Ko Wang, 喝王。 The old priest told us that each year on the 8th day of the 8th Moon, an umblemished calf is released into the wilds, figuratively bearing the sins and sickness of the people away for the year. It first circumnambulates the fields, and people touch it and receive cures for various ailments.

Then he told us of a Dwan Kung, 端 公, or Shaman Priest in a Tribe nearby, who had the faculty of killing a steer by stabbing it to the heart without shedding a drop of blood. This was effected by the caking of his hand and wrist above the knife with thick Tibetan butter, and as he plunged the knife in the butter covered up the aperture so as to prevent external bleeding. This was considered very efficaceous, and such a sacrifice was an acceptable sin offering. Such practices certainly remind one of Old Testament customs, and have led some to relate these people to the ancient Jews. However such "Wishful Thinking" has its dangers, and reminds one of the salesman selling Damascus blades of ancient vintage. "This is the one Balaam had when his ass spoke" said he. The buyer was ready, "But the Bible says he only wished he had a sword". "Yes, I know, but this is the sword he wished he had". In our work as researchers we must seek facts to fit our theories, rather than make our theories fit what facts we think we A case in point is the story of the two geologists in the Highlands. Through a glass one saw the other by dint of great energy roll a great rock and tip it over the hill. Pressed later to explain he finally admitted that the rock was 200 feet too high to suit his theory.

Most interesting of all at the Peh K'ung Temple is the great tablet of spirit-writing erected over the door. The priest says no one can read, because it was written by spirits, but that it brings wondrous luck to all concerned, so I was careful to make a good copy. Interesting too are the scroll inscriptions;—

The clear of eye can comprehend the affairs of the Universe.

## 白眼能觀天下事

The pure of heart can protect all the people of the world. 空身可保世間人

These Spirits of Non-Desire have communication with India. 白文蟹通西天竺國

T'is Natural here to surpass the Islands of Japan. 天命 應 奏 海島 蓬 菜 (Islands of Immortals)

As I stood in the early morn, when all was still and quiet at that great altitude, and looked over that matchless sea of glory I felt very small and insignificant. I had a similar experience when with Dryden Phelps last Chinese New Year we stood on the Golden Summit of Omei after painfully toiling up snowy slopes thru banks of clouds, there to behold in glorious sunshine the same matchless panorama of snow mountains.

Standing there on Peh K'ung summit, and reading the seroll, "These Spirits of Peh K'ung have communication with India", I recalled the Lama in: "Bengal Lancer," "As the dew is dried by

the morning light so are the sins of mankind dispersed by the glories of Himalaya"— "He who has seen Himalaya is greater than he has performed all the worship of Kashi".— "Hours passed and altho it was not yet dawn its foreglow had lit 300 miles of snow mountains before me, remote and plumed with storms that never cease, yet in appearance so close and so quiet that it seemed to me I might stroll there in an hour or two and bask in its white peace. We sat still looking over those titanic masses that have given India her fertility and her faith.— The old mountains looked indulgently on us as we faced the shrines of glory.— The world was still young, and full of blossoming, and of fluttering, and a search for things unfindable."

### Song of the Wanderer:-

The road is calling my eager feet, I must be up and away, When the dew is bright on the hill-tops and the dew is cool on the grass,

I will watch the last stars fade, at the swift approach of day, And the singing birds in the mountain trees will greet me as I pass.

I must be up and away for the urge is ever strong,

To follow the path adventure weaves when the dawn is red in the sky,

When the hills are filled with a faint perfume and woods are fair with song,

And the whole world echoes the merry sound of the breezes dancing by.

The voice of the road is calling me from valley and hill and plain,

And flaming beacons to lure me on leap up from the dawn's refire,

And I must follow the shining trail thru shadow and sun and rain,

Till I come at last thru the purple mist to the Land of my Heart's Desire!

(Adapted from lines by F. Robina Monkman)

# A PRELIMINARY REPORT OF THE HANCHOW EXCAVATION.

### DAVID C. GRAHAM.

In the spring of 1931 Rev. V. H. Donnithorne, of Hanchow, Szechwan, China, heard that a well-to-do farmer, Mr. Yen, in deepening an old irrigating ditch, had found a number of stone and jade rings, squares, and knives. Realizing that they were of great scientific value, and in time might completely disappear, Mr. Donnithorne made an effort to get them permanently preserved.

In the words of Mr. Donnithorne.

"It was in the early spring of 1931 that I first heard some gossip about some stone knives and rings having been dug up not far from here. It came to my ears that a farmer in excavating for a waterhole had come across a number of these things and had been giving

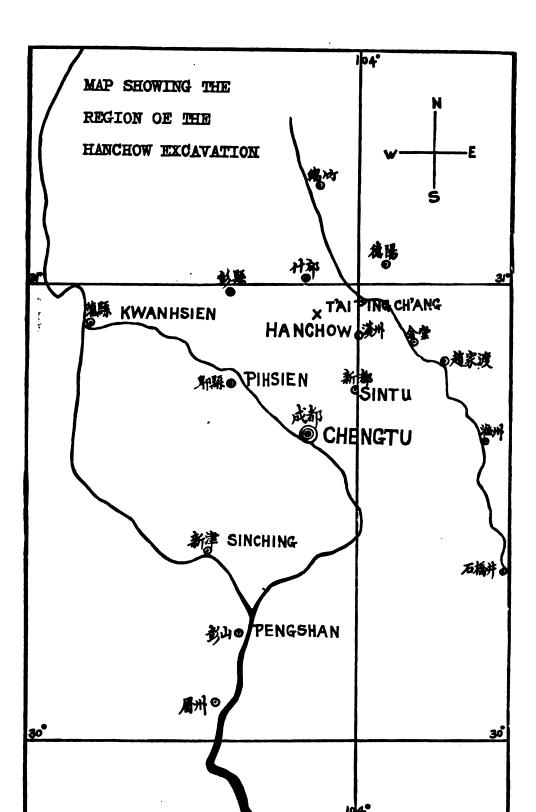
them away to women and coolies and all sorts of people.

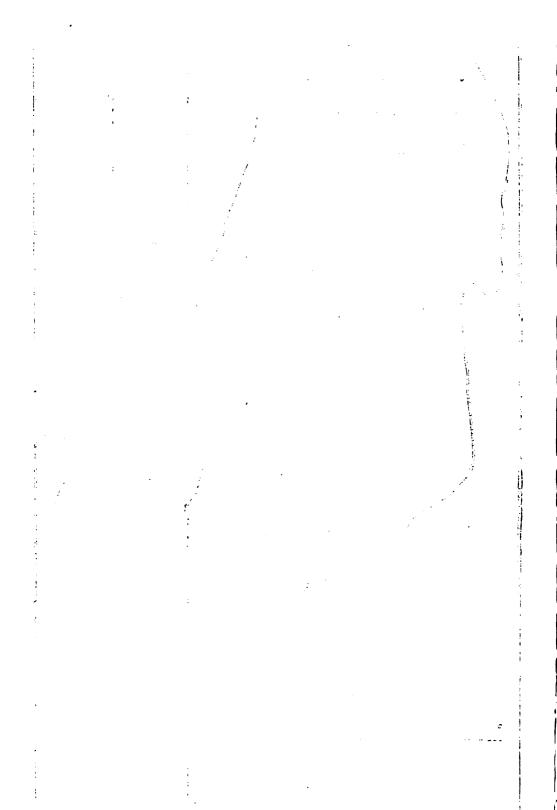
"I knew it was no good for a foreigner to put in his appearance and try to get hold of these things, but that it was necessary for him to work through a local Chinese official, so I spoke to Colonel (now General) Tao, and urged him to make enquiries and try to get these things preserved. Colonel T'ao was at that time magistrate of the city. He promised me to make inquiries and if possible to bring some of the stones for me to see. In a few days he called again, bringing the five stones which are now in the museum. He said that the find had been made on the ground of a well-to-do gentlemen who said that he would not part with these stones, and would not sell them to me or to anyone else, The present five stones he had lent to Colonel T'ao, but wanted them returned. I received permission to keep them for a little while, and the next day went by bus to Chengto and gave them into Mr. Dye's care. A few days after that I met Colonel T'ao again and asked him to do his best to procure these for the museum; so after a short while he called again, this time bringing with him Mr. Yen, the old gentleman on whose grounds the stones had been found. The latter was evidently suspicious, not knowing what I wanted the stones for. Colonel T'ao was by this time very interested in the find, and desirous to get the stones safely deposited in the University museum; Eventually Mr. Yen allowed Colonel T'ao to have these five stones, and Colonel T'ao allowed them to remain in the University museum as his gift."

"Later on, in June, we made an expedition to examine and photograph the site of the finds, at T'ai-p'in-ch'ang, some eighteen li from here. The party consisted of Colonel T'ao and six soldiers of his bodyguard, and Mr. Dye and myself, and the University photo-

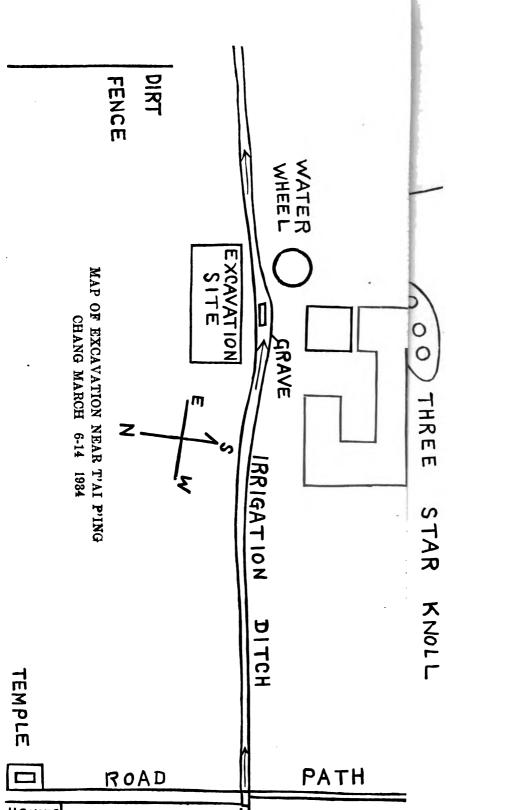
grapher, Mr. Gin."

The five jade objects, presented by General T'ao to the University museum were purchased by him from Mr. Yen. Mr. Yen himself presented to the museum another jade knife and a large

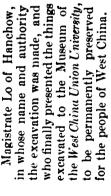




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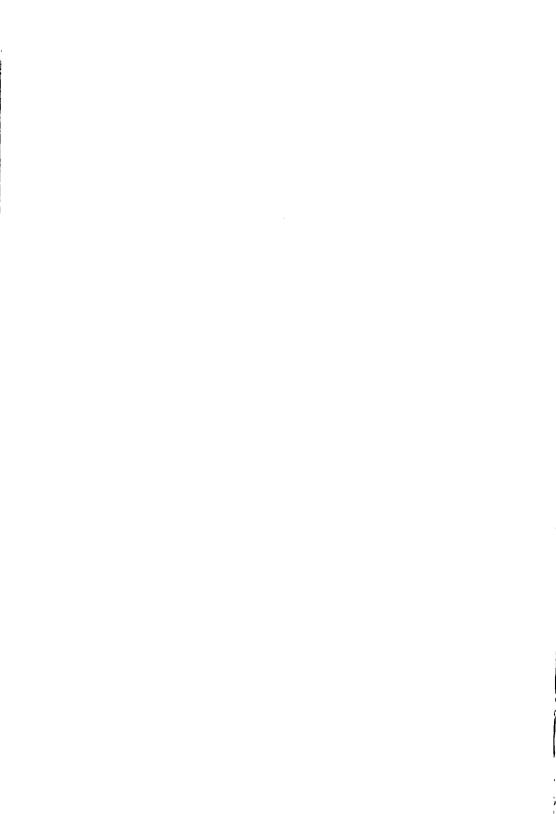


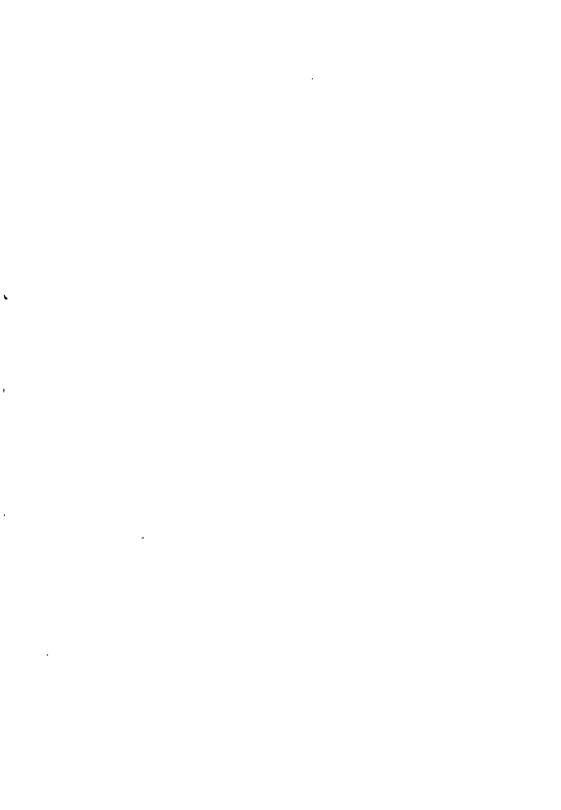


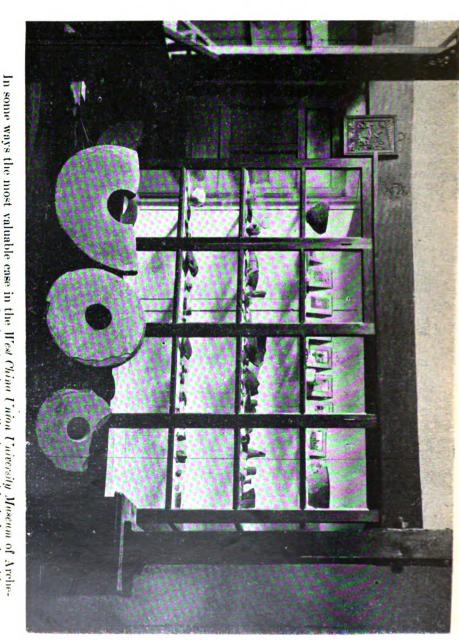




Mr. Cheo and Mr. Shia. These men were given the primary responsibility of supervising the military escort and other important details for Magistrate Lo.







grave goods yet discovered in Szechwan date from the Han Dynasty. known pottery, jades and grave goods from Szechwan, pre-dating any other known collection by about 1000 years. It dates from about 1000 B.C. Aside from this, the only pottery and ology, Art and Ethnology. It contains only the Hanchow collection, and includes the oldest

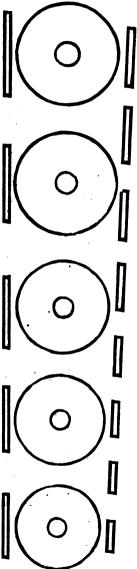
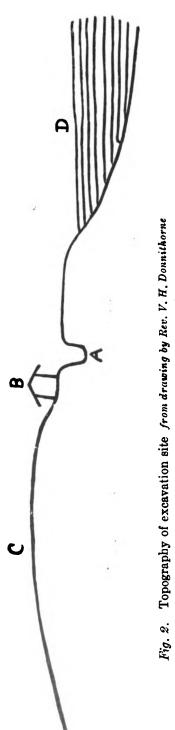


Fig. 1. Diagram showing the Ancient Grave as originally discovered.

The top was covered by stone discs gradually diminishing in size, lying in a flat or horizontal position. The sides were lined with disks in a vertical position, also gradually decreasing in size. Each of the disks has a round hole in the centre.

After a drawing by Rev. V. H. Donnithorne.



Level plain, gradually being filled with silt from the mountains. A. Ditch where implements were found. Shed containing water wheel. Hill rising above the plain.

stone disk. In 1934 Mr. Yen gave the museum two more of the large stone rings one broken in two and the other in excellent condition.

In the fall of 1933 the writer, hoping to secure more information about the jade objects in the West China Union University museum, wrote to Mr. Donnithorne. As a result of the correspondence then begun, the plan gradually took shape to go to the site where the jade objects had been found and to excavate, with the hope of finding more similar objects, and of securing additional date that would make possible their more accurate dating, and the determination of the culture to which they belonged. The approval of the Educational Board of Szechwan was secured in due time, and also the approval of and a passport from the Civil Government of Szechwan.

On March first the writer went to Hanchow to make final arrangements with the local officials about the excavation. To his surprise he learned that on that very day a party had begun to excavate the site. When it was explained to Magistrate Lo that unscientific excavation would do irreparable harm, he ordered the digging to cease, and invited the writer to bring his excavating tools and supervise the work. The excavation was to be Magistrate Lo's, but the writer was to have complete control as to methods.

On March fifth the writer again went to Hanchow, this time fully equipped for work. That afternoon and evening he was entertained in the home of Rev. and Mrs. Donnithorne. Magistrate Lo called and discussed plans. Next morning Mr. Donnithorne, two officials appointed by Magistrate Lo, and the writer went to the site, near T'ai-p'ing-ch'ang, where the excavation was to be made. About two li from T'ai-p'ing-chang they were met by a squad of soldiers who respectfully saluted and then escorted the party into the village. Here they were given a courteous welcome, with tea and sweetmeats, and then escorted to the home of Mr. Yen.

After a sumptuous feast in the home of Mr. Yen, the baggage was moved to a clean room in a nearby temple. Then the ground was staked off as a preliminary to excavation—a task which was quite difficult because of the unevenness of the ground. Next morning the work was begun in earnest.

At the time of the excavation the country-side near T'ai-p'ing-ch'ang was not very safe. A large band of robbers was occasionally making night raids in order to carry off 'fat pigs,' rich men who could be held for ransom. Two such raids were reported to us while the work was going on. Knowing about this danger, Magistrate Lo appointed eighty soldiers to protect us. As an added safety measure the officer-in-charge had us sleep in a different house or temple almost every night. During the day soldiers were picketed around the site in all directions, and no strangers were allowed to come near. Including the local headman, Mr. Li, six different officials were appointed by Magistrate Lo to assume responsibility and give us help when it was needed.

The site of the excavation is T'ai p'ing-ch'ang, about eighteen li from Hanchow. It is on top of a hill which rises forty or fifty feet above the surrounding plain. The plain is quite level, and is gradually filling up, at the rate of about six feet in a thousand years, with silt brought down in the irrigating ditches from Kuanhsien. On the other hand, the hill, like several others in the vicinity, is gradually being eroded away, which explains why the ancient kiln stratum is so near the surface of the ground.

The original find of stone and jade disks, squares, and knives, was on the farm of Mr. Yen, at the bottom of an old irrigating ditch which, according to the local histories, was dug during the Ming Dynasty. Every year the ditch is cleaned out at public expense. The water has to be pumped out of this ditch onto higher ground by means of bullock wheels. Mr. Yen has such a wheel under a straw shed, and it was while deepening the ditch so that the water wheel would work more efficiently that the remarkable discovery was made.

In the bottom of the ditch, lying almost east and west, was found a pit seven feet long, three feet wide, and about three feet deep. On the top the pit was covered with stone disks lying horizontally. There were about twenty of these disks in all, diminishing gradually in size. A horizontal layer covered the top of the pit, and two smaller vertical rows lined its sides. Inside the pit, under the horizontal layer, the wonderful jade objects were found. Mr. Yen at first did not appreciate their value, and gave them away freely to his friends.

A little way from the Yen family home the side of the hill takes the form of a large, semicircular bend which looks not unlike the rim of the moon. This is called yuch-liang-wan, or moon bend. Near the bend is a farmhouse in the yard of which is a solo tree, which is also a fenghui tree. There is thought to be a solo tree on the moon, and others at various spots on the earth. They are all fengshui trees, surcharged with the mysterious potency, fengshui. Farther to the south is a small hill on which there are three smaller knolls which are regarded as stars. The knoll is called three-starhill. This knoll, the solo tree, the moon bend, and other topographical features in this vicinity are believed to combine to make the land near the Yen farm a place remarkably strong in fengshui, and the fengshui center of Hanchow. The fengshui is believed to be very strong, and, if the right rules and precautions are observed, very good. For this reason this spot has probably long been the home of leading Chinese. If wrong things are done, the fengshui may become very injurious. One of the sons of Mr. Yen showed me a pit that had been dug about seven feet into the earth. He said that because this hole was too deep his father and he had become ill and nearly died. He also said that if a hole was dug too deep on his farm a severe pestilence would break out in Hanchow.

A short distance to the east the Yen farm, and on the same hill, there is said to be the ruins of an ancient city. Han dynasty

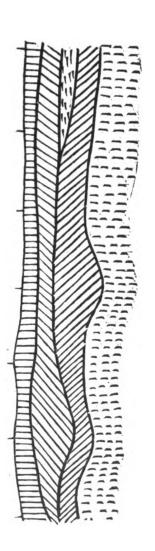


Fig. 3. Chart Showing Strata at the Zero Line

Top layer of black soil.

Layer of sand from ditch.

Extra layer of sand from the ditch.

Stratum of kiln refuse, ashes, sherds, burnt clay, etc. Undisturbed sterile clay.

Zero or ideal datum plane.

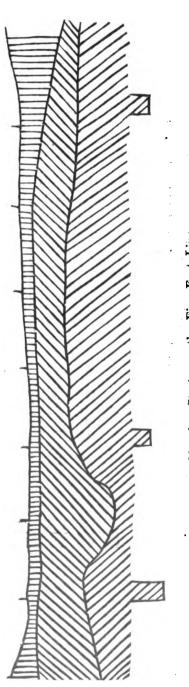


Fig. 4. Chart Showing Strata on the Five Foot Line

Stratum of recent surface dirt.

Stratum yielding ancient potsherds.

Stratum of brown clay with no pottery or implements.

Datum plane.

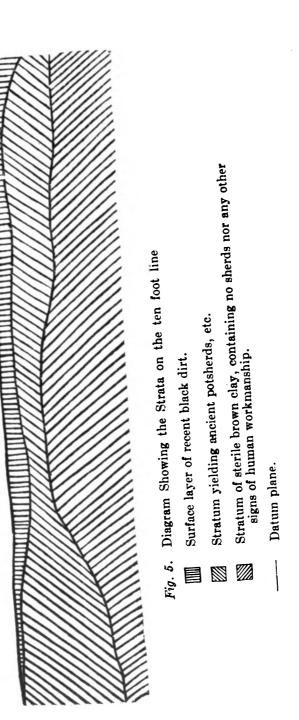


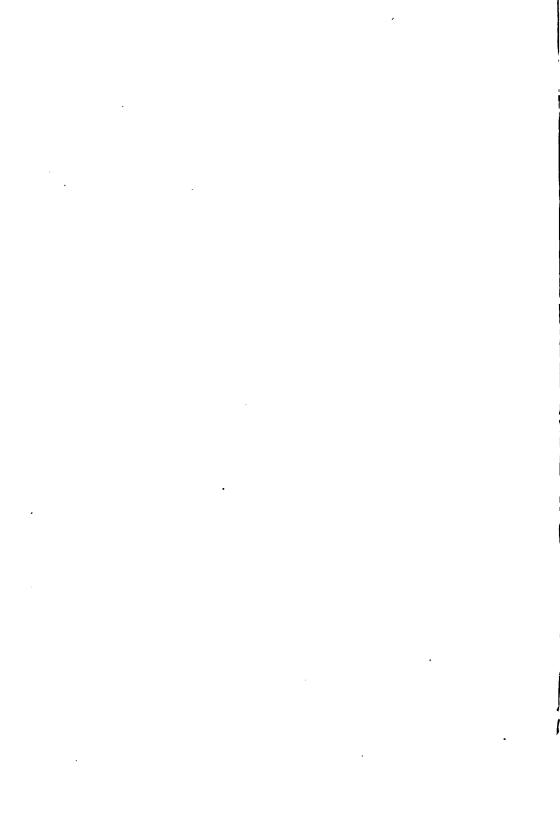
Mr. Lin Min-juin (left) with five of the Hanchow gentry who assisted in the excavation.



Mr. Lin Min-juin, assistant curator, (left), D. C. Graham (right), with some of the Hanchow gentry who cooperated in carrying out the excavation.











The first trench with laborers, curators, soldiers and gentry, when the trench was a little over half completed.



The first trench when nearly completed. The water from the big irrigation ditch was later turned into this trench and the ditch pumped dry.

bricks are to be found in some places on this hill. There is a tradition that this hill was once the home of a prime minister of China.

The instruments used in this excavation were the surveyor's level, the plane-table, foreign shovels, foreign and Chinese picks, trowels and dull knives, small sticks or punches made of bamboo in lieu of orange sticks, a post-hole digger, hard and soft brushes. steel tape, the surveyor's rod, ambroid, drawing instruments the compass, a kodak, etc. The aim was to carefully distinguish the stratification of the ground, to note the exact location and depth of every object worth preserving, and to keep a full and careful record of the operations so that through this work as much as possible of the history of the place and of the culture here hidden might be recovered.

The ground to be excavated was first staked out in five-foot Each stake had a number, and each square was given the number of the stake in the lower right-hand corner. Every object found was given a field number. This number was written on the object and in the field note book. In the book the depth and the square of each article were carefully noted and also any other interesting facts about the object. A ground plan and a map were drawn and a full record of the work was kept. In order to secure accuracy in measurements of depth and stratification, an ideal level or datum plane was established. The surveyor's level was placed on three wooden stakes which were driven solidly into the ground. All depth measurements were from this ideal level or plane.

The irrigating ditch approaches the Yen family home from the northwest. Just before it reaches the bullock wheel, it makes a sharp turn, and thereafter proceeds almost directly eastward. The houses and buildings of the Yen family are on the south side of the ditch. The houses are so near the ditch and the banks are so steep that excavation on the south side of the ditch and near the ancient grave is practically impossible. We therefore decided to excavate on the north side of the ditch.

We first dug a forty-foot trench five feet wide between the zero and the five-foot lines. The trench was dug down into the sterile soil several feet below the point where broken pottery or any other signs of human work could be found. Then testpits were dug several feet deeper so that there could be no possibility that we had not gone deep enough.

The place where the stone and jade and objects had been found was in the bottom of the irrigating ditch, and the ditch was full of running water. In order to solve the problem, if possible, whether the pit was a human grave or something else, we diverted the water from the ditch into our newly-dug trench, damed up the ditch on both ends, and then, with the bullock wheel, pumped the ditch dry. After all the sand had been carefully sifted over, we dug down deeper until we were in sterile soil, then dug down test holes. We found the pit where the stone and jade objects had been

discovered. We very carefully sifted over all the sand in the pit, hoping to find objects that had been missed by the local people. We secured nearly a hundred fragments of stone rings, and stone and jade knives, fifteen turquoise and green stone or jade beads, and over eighty small, flake-like pieces of jade, square or oblong in shape, besides a few pieces of broken pottery.

The water was now turned back into the irrigating ditch, and two new trenches dug, one on each side of the first trench, each forty feet long and five feet wide. In three trenches, beginning a little over a foot under the ground and in some places four or five feet deep, was an undisturbed stratum which was the refuse heap of an ancient pottery kiln. In this stratum were found hundreds of fragments of pottery, numerous pieces of broken stone and jade implements and circles, a few implements in good condition, three beads, and three tiny jade flakes such as were found in larger numbers in the grave.

When the digging was finished, all the dirt was put back into the trenches, and the ground was carefully smoothed over. The farmer was paid for the privilege of digging, and for the injury to his crops. We ran down test holes about fifty feet to the north of our site, about fifty feet to the west, and one hundred and two hundred feet to the south. Everywhere we found the ancient kiln layer a little way under the surface. While the finding of another-grave is very doubtful, the site is far from exhausted, and thousands of fragments of pottery, and many fragments of jade and stone implements and rings can be found by future archaeologists.

The excavation was that of Magistrate Lo, and we were his agents to see that it was done scientifically. We therefore took all the objects found to the yamen and laid them out before Magistrate Lo. After he had looked them over, he said, "This collection is of scientific importance. I present it to the Archaeological Museum of the West China Union University." I replied thanking him and the Hanchow people for their kindness and courtesy, and for the gift, and accepting the gift on behalf of the Museum. Before I returned to Chengtu Mr. Li, a member of the Hanchow Educational Board, gave a feast in the Chamber of Commerce to Mr. Donnithorne and me, and Magistrate Lo gave us a feast in one of the buildings of the Hanchow city park.

There are at least three ways in which this collection is of interest to the student of ancient oriental culture and history. First, the grave objects throw light on ancient burial practices, and social and religious customs. Second, the stone and jade implements and ornaments are of special interest to the archaeologist; and, third, there are the many potsherds, which make possible a study of very ancient Szechwan pottery.

We have referred to the fact that the pit in which the remarkable find was made was seven feet long and three feet high, which is about the size of an average grave. The jade ceremonial knives.

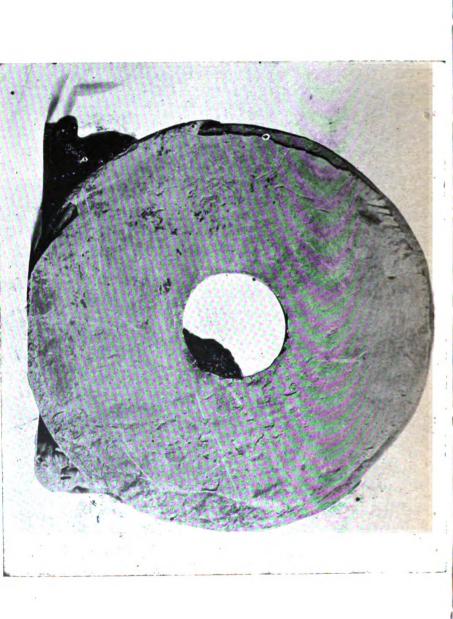


Broken Stone Disks, symbols of Heaven, from the Cheo Dynasty grave at T'ai P'ing Ch'ang, excavated March, 1934. Now in the Museum of the West China Union University. Large disk: maximum diameter, 240 mm. diameter of hole, 77 mm. thickness, 10 to 14 mm.

Small disk on right: maximum diameter, 110 mm. diameter of hole, 40 mm. thickness, 10 mm.







Large Stone Disk, found by Mr. Yen in the grave at T'ai P'ing Ch'ang, and later presented by him to the West China Union University Museum. Maximum diameter, 520 mm. Diameter of the hole, 130 mm.

chisels, and swords, the jade squares, and the jade disks are such as were commonly buried with the dead in the China of the Cheo Dynasty. It is very likely that the beads were buried with a deceased person. It seems quite certain, that this is an ancient grave, and if our assumption is correct, we have in this collection the oldest grave objects that have been found in situ in Szechwan province by about one thousand years.

Among the objects found in the grave-pit are turquoise and green stone or jade beads with crude holes for stringing. The holes were bored in from opposited ends of the beads, and are smaller near the center. There are more than eighty small green jade flakes which must have been glued as ornaments onto wooden or leather objects, since they have no holes by which they could be sewn or strung on. The jade swords, knives, and chisels, were apparently used for ceremonial purposes. In the worship of Heaven and Earth, which was practiced during the Cheo dynasty, the jade square represented Earth, and the jade circle represented Heaven. There must have been pottery in the grave, but obviously the pots were broken and thrown away by these who originally opened the grave. The two flat jade swords with numerous notches near the handles were emblems of war. The museum has a replica of a longer jade sword that was found in the pit, but it was not possible to secure it. The two jade squares very closely resemble the jade tubes described by Laufer in his great book on jade where it is stated that they are symbols of the deity Earth. The jade circles in the Hanchow collection also resemble Cheo dynasty jade disks. Probably the stone circles or disks are also symbols of Heaven, but are too large to be made of jade.

In the undisturbed kiln-stratum, besides the three beads and the three tiny jade flakes already mentioned, there were found a large number of fragments of stone and jade knives, swords, chisels, and circles which are made of the same materials and show close similarity in shape to the stone and jade objects found in the grave. As one handles and studies these objects and those from the grave, the conclusion seems unavoidable that the kiln stratum and the

grave belong to the same time and culture.

Prof. D. S. Dye, teacher of geology in the West China Union University, after a careful study of some of the jades and stone implements, made the following remarks:

> "This is a very limited study, and I have only examined the hardness and macroscopic marking under low power lenses, using calipers.

> "The small green flake examined has a hardness of No. 5, and a specific gravity of 5.3. It has been filed in working, without the use of a wire saw, as the direction of filing was frequently changed and the file was allowed to "rock." A better determination of the specific gravity could be made by massing a dozen of the flakes, as the individual pieces are so small. These were probably cemented upon some surface, as there are no holes. The general width is 4 m.m.; length, 10 m.m.; and thickness 1 m.m.

120

"C/8450 is a fragment of hardness No. 6. It was first, apparently, sawn into a slab thinner on one edge than on the other, then it was cross hatched with double lines into a lozenge design on one surface, with a wire saw in a guide, and after this it was sawn lengthwise with one out on one edge and two cuts (one from above and one from below) on the other edge. The wire saw used in cross-hatching was under 0.5 mm.; but the wire for cutting one of the last cuts was 1.00 mm. in diameter. The very shallow groovings in the lozenge pattern do not cut deeper at the edges than in the middle of the pattern, so it seems safe to state that the pattern was made before the piece was cut lengthwise. The broader end has two bevels on one side and one on the other, but the other corner is broken off. It may have been used as a borer, as these bevels and the hardness suggest, but restoring the broken corner still gives an eccentric borer. (It is true that the holes are very crudely made in all examples in this excavation. as well as in practically all pieces of similar type on display in the larger museums in the world.) The narrower end is broken off. To repeat, the "saw marks" and the surfaces so made are straight and flat, the hatchings are closely parallel and even, but they are not microscopically regular, so that these were made by separate "cuts" by the "saw". The workmanship on this piece is on a par with that on the two large jade knives. The measurements of the finished piece are: length, 4.5 c.m.; width at broad end 1.53 c.m.; thickness at narrow end, 1.32 m.m.; thickness at broad edge, 5.5 mm.; thickness at narrow edge 3.2 mm. It is a most intriguing piece,

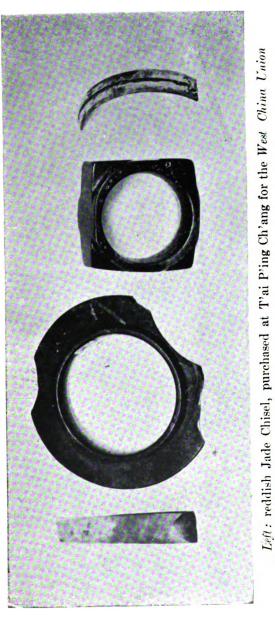
"C/8417 is a heavy tool of hardness No. 6. It is a fragment that is difficult to reconstruct. The upper and lower surfaces are somewhat like an ax. The upper and lower edges were rounded and do not show evidences of sawing as do the side and bevelled bit. Neither of these latter shows evidences of rocking. If these latter were polished by abrasion they were held in a guide or block support to insure straightness and flatness. A steel straight-edge does not reveal rocking on either of these latter surfaces. It is a fragment and it is difficult to visualize what it might have been used for.

"The large spade-knives seem to point to a handled tool, with a bevel on a certain side, and a longer point on one prong, and the handle is at an angle to the line of knife. This all suggests that these were used in sacrifice in a particular way with the "officiator" in a particular place, that he was right-handed, used both hands, etc., but this is not easy to explain. As I write this, there comes up the spade money and the knife money which are related to these shapes. The mechanics of the spade-knives is most admirable for that kind of a tool.

"The knives were sharpened at different angles or bevels. On the ceremonial knives there is a chisel bevel, done only on one side. The ornamental lines were definitely cut across with a wire for decoration and for hafting purposes so as to avoid slipping.

"The flat jade sword or knife C 4866 was sawn on both sides. Then one side was sawn from two sides and did not perfectly meet in the middle, making a depression along the side. The edges were sawn off a very little bit but rot near the handle. They turned the corner for hafting. The handle is put in such a position that if used to cut, the implement will not break. There is great beauty and artistry in the lines and workmanship of the flat jade sword-knives.

"Some of the cutting was apparently done under terrific pressure—the sawing was done by a saw-wire under strong tension, else the lines sawn would have been somewhat bow-shaped. All the sawn lines are very straight with almost no curving at the edges. These are well-balanced tools, that could have been actually used, with very artistic curves and fine hafting. The artistry is a tonishing for that time."



University Museum.

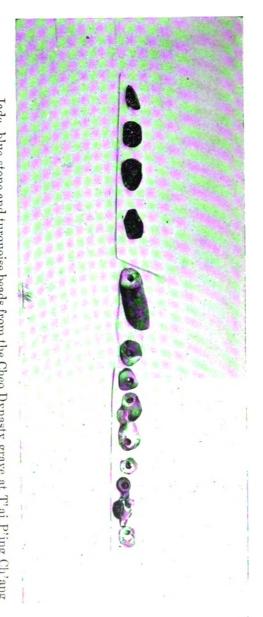
Next: Jade Square, symbolic of Earth, from the grave at T'ai P'ing Ch'ang. Presented to the West China Union University Museum by General T'ao of Hanchow. Next: broken Jade Disk, symbolic of Heaven, also purchased.

Right: broken Jade Disk, symbol of Heaven. Purchased at T'ai P'ing Ch'ang.

Large disk: maximum diameter, 101 mm., thickness, 19 mm., diameter, of rim, 61

Chisel: length, 77 mm., width, 16 mm., thickness, 8 mm. Broken Disk, breadth 14 mm., thickness 2 mm.





Jade, blue stone and turquoise beads from the Cheo Dynasty grave at T'ai P'ing Ch'ang near Hanchow, Szechwan. They are mostly rough and irregular in shape. Dimensions of largest bead are: length, 40 mm., thickness, 12 mm. From the West China Union University sity Museum.

In the fourth volume of the Journal of the West China Border Research Society, Prof. D. S. Dye gave a careful description of the two jade knives or swords and the three axes or chisels that were originally presented to the museum by General T'ao and Mr. Yen. They were probably used for ceremonial purposes. Laufer, in "Archaic Chinese Jades," calls this type of an implement a sword-like weapon, and an emblem of war. He also states that the notches or "teeth" symbolized warfare during the Cheo dynasty. These two implements vary in color from a dark, green gray to a light neutral gray. The measurements of the more perfect implement, C/4866, are: length, 391 mm.; width, 103 mm.; and thickness 5 mm. Each implement has a hole in the handle that is larger on one side than on the other.

The three axes or chisels, C/4867, C/4868, and C/4869, are of coarser material. On each of them the blade is flat on one side and sloping on the other. C/4867 is concave on the sloping side of the blade. These may have been for ceremonial purposes, but

they could also have been put to very practical uses.

The small beads found in the grave pit resemble those excavated at Sha Kuo T'un, in northern China, but they are more square or oblong. At least two of them are turquoise. The color of the beads varies from a blue green and a dark purple gray to a very pale blue green.

C/8452 is a large, round, much longer than the other beads of this collection. A hole has been bored in from the two ends which becomes gradually smaller near the center. The color varies from

a light cool gray to a dark cool gray.

The tiny jade flakes vary in color from a deep blue-green to a light green. It is quite evident that they were glued on to leather or wooden objects as ornaments, for there are no holes with which they could be tied on.

C/ 2095 is a type of jade square which Laufer calls a tube, and which was symbolic of the deity Earth in those early days when the worship of Heaven and Earth played so large a part in the Chinese religion. This was presented to the museum by General T'ao.

C/8934 is a larger jade square. Its color varies from a light gray to an olive brown, with occasional patches of dull green. There are horizontal grooves on its sides, and several small circles, at least two small circles being carved on each size. In ancient China jade tubes like these were often buried with the dead. This exquisite jade formerly belonged to Rev. V. H. Donnithorne. He was offered thirty pounds for it, but he presented it to the West China Union University museum.

C/8298 is a wheel disk which was found in the grave. It is very thin, and has a rim around the main circle and at right angles to it. The width of the main circle is 16 mm., and the width of the rim is also 16 mm. Its thickness varied from three to five mm. The color is a dark yellow orange, shade number two. This type of jade disk represented the deity Heaven.

C/8368 is a fragment of a jade disk found in situ in the kiln stratum. It is flat and has a hole in the center smaller on one side than on the other. Its shape resembles closely that of the large stone disks. Its color is a dark neutral gray with a very light gray patination. It is one of the many evidences that the grave and the kiln stratum are of the same age and culture.

C/8362 is a broken jade wheel disk found in the grave, which was purchased from Mr. Yen. It is a light green-gray in color.

C/8451 is a small jadite or nephite chisel. It shows a fine, careful workmanship. It has a concave cutting edge, and its shape and function is much the same as the large chisels. Probably it was used for cutting grooves in wood. Its color varies from a deep orange to a light yellow orange. Its dimensions are: length, 71 mm.; width 16 mm.; and thickness 6 mm. This tool was purchased from a farmer who said that it was found in the grave.

C/8349 is a jade or jadeite core stone that was probably discarded because it could not be made into useful implements. It was found in situ in the undisturbed kiln stratum.

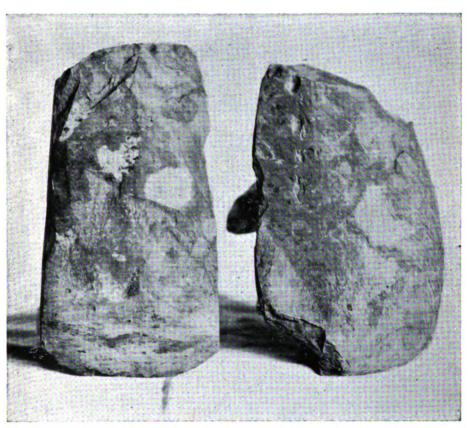
C/8292 is a large, heavy, sharp axe. There has been some chipping near the top. The two edges may have been sawed, for they are straight or flat, but the sides and blade have been finely shaped through rubbing or grinding. Numerous defects in the stone have caused the surface to be pitted. The color varies from a cool dark gray to a neutral light gray. This axe was probably used for practical rather than ceremonial purposes.

C/8367 is a jadeite fragment of a tool that was never finished. It was apparently being made into a long, sword-like implement. Several pits were chiseled in a line about an inch from one side. Probably this long strip was to be broken off preliminary to the work of sawing or grinding it into a sword or chisel. But the top cracked off, and the large fragment was thrown away. These holes appear to have been made by a metal chisel, but they may have been made by a hard stone chisel.

C/8374 is a small axe made of igneous rock. There is a depression at the top and one at the side which were made for hafting. The length is 76 mm., the width 55 mm., and the thickness 9 mm. The color is a dark cool gray.

C/8291 and C/8493 are large sledge hammers. They were found in a layer of the kiln stratum that had been thrown up from the ditch. The sides have been ground flat, and the edges squared or flattened off. They are made of igneous rock, and each of them weighs several pounds. The larger one varies in color from a dark cool gray to pale yellow gray. The smaller one is a cool dark gray, peppered with a light orange yellow.

C/8370 is a large fragment of a sledge hammer that was made of a micaite stone. It was much wider at the base than at the top. The color is a pale yellow orange with a rusty shading and its thickness is 32 mm.

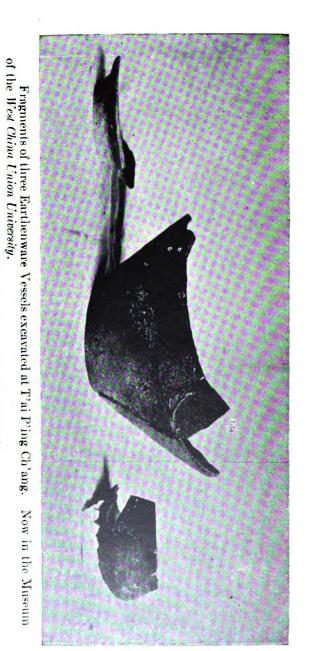


Left: a stone or judite Axe. It closely resembles a stone axe actually used for cutting, but may have been a ceremonial knife, first broken in two and then rounded at the top for use as an axe.

Length: 229 mm., Width: 118 mm., Thickness: 38 mm.

Right: broken stone or jadite ceremonial knife excavated at T'ai P'ing Ch'ang, near Hanchow, Sze., along with the axe shown at the left. Width: 132 mm., Thickness: 25 mm. Excavation in March, 1935. Now in the West China Union University Museum.





Left: apparently a flat plate, gray in color and sand-tempered.

Centre: part of a large bowl of coarse, dull, brick-colored material.

Right: a small and very fine bowl, colored black outside; incomplete.

C/8463 is a small pestile that is flat on two sides and square or flat on the two edges. One end has been nicely rounded into a small semi circle, and the other end has been broken off. The length is 71 mm., the width 36 mm., and the thickness 14 mm.

C/8465 is a fragment of a stone sword or knife made of sandstone. The sides and edges have been ground smooth and flat. The stone has patinated to a brown color. Both ends have been broken off. This may be a ceremonial implement, but it seems probable that it was used for practical purposes. The width is 76 mm, and the thickness 10 mm.

C/8450 is a most interesting tool which has already been described by Prof. Dye. It is made of hard sandstone and is apparently a borer or auger. The color is a light neutral gray.

C/8430 and C/8426 are rubbing stones found in the undisturbed kiln stratum. They are igneous pebbles that have been worn to flatness in several places. They were evidently used for smoothing the surfaces of pottery. Such rubbing stones are frequently found in the old kiln-heaps of Szechwan.

C/8375 is a dark red iron nugget that has never been hammered or melted. It was found in the kiln stratum. C/8290 is a fragment of a graceful sword or knife made of unmelted and unhammered iron ore similar to C/8375. A small lump of copper ore was found in the kiln heap, but no copper, bronze, or iron implements.

C/3547 and C/8477 are two large sandstone disks which were presented to the museum by Mr. Yen. They are flat on both sides, and each has a large hole in the center that is smaller on one side than on the other. The color is a neutral light gray with patinated patches that are a warm dark gray. They are made of a fine grade of sandstone. The measurements of the large disk are diameter, 705 mm., thickness, 68 mm., and maximum diameter of the hole 190 mm. The measurements of the smaller disk are, diameter, 511 mm., thickness, 43 mm., and maximum diameter of the hole, 140 mm.

There are many fragments of stone knives, chisels, and swords not here described, and a number of broken disks similar in shape and material to C/3547 and C/8477. The many stone implements and fragments of stone implements found in both the grave and the kiln stratum at Hanchow indicate that the culture found in this excavation flourished at a time when real stone implements were quite generally being used for practical purposes, that metals were still very scarce, and that the Chinese culture of north and central China had already exerted a vital force in Szechwan province.

The pottery is of great interest. In the undisturbed kiln stratum not one piece of porcelain was found. Yet the pottery is well made, and is remarkable for its interesting shapes and colors.

There are two general types. One is coarse, sand or grittempered, often with cord markings, often is burnt to a brick red on the outer surfaces, and is generally a dark gray inside. The other is generally made of finer clay, and is often a light gray in color. The inner layer is sometimes darkened by the addition of charcoal, and the outer surfaces are sometimes colored by brushing on colored clay or other coloring. There is evidence that a clay vessel was dipped into a clay of another color until the outer surfaces were covered with a layer of the colored clay, after which the pot was baked in the sun or in a kiln of moderate temperature.

Apparently the potter's wheel was employed, although some of the vessels were made by hand and are irregular in shape. The surfaces of some of the vessels were smoothed by means of rubbing stones. The legs or stems remarkably long-much longer sometimes than is found in Han dynasty pottery. One stem is almost exactly a foot in length. These long, hollow legs or stems were very common in the kiln stratum. Several of those which were collected show very plainly, both on the inner and on the outer surfaces, the colored layers caused by dipping the vessel in colored clay.

Some of the pottery is decorated by means of incisions made by scratching the surface with combs having from one to four teeth. All of it is monochrome—On no surface is there more than one color, and there are no painted flowers or other colored orna-

ments.

Prof. H. B. Collier, Ph.D., instructor of chemistry in the West China Union University, made a very careful analysis of the Hanchow potsherds, and his report is as follows:—

"The Hanchow potsherds are unusual, in that the colorings of the pottery are not uniform throughout the samples. Most of them exhibit a definite layering of colors; it is important to decide whether this feature was produced purposely by the potters, or was an accidental result of firing and weathering. The following study was made to obtain evidence on this point.

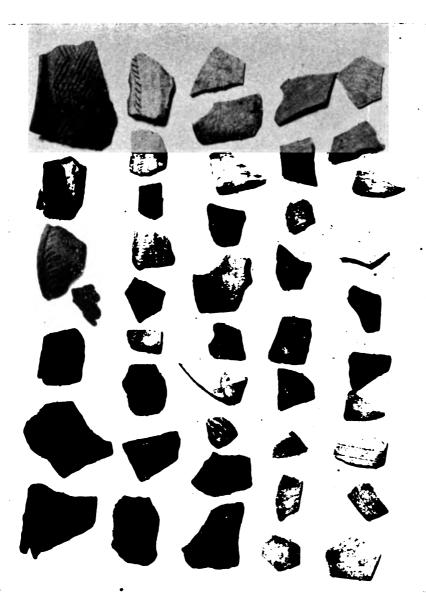
"The sherds could be divided roughly into two groups, based on macroscopic appearance. One group is a thick, coarse pottery, with incorporated sand. There sherds are mostly brick red on the outer surfaces, with yellow or gray interior layer. The second type of pottery is mostly of gray or black inside layers, with yellow onter coats. The stratication is very distinct in these samples.

"Heating. A possibility is that the color variation of the pottery is due to the firing of the kiln. To study the effect of further heating, small fragments were heated to redness in the open

(oxidizing) Bunsen flame.

"Sample I. A coarse sand tempered sherd. The onter layers were brick-red, of about 2 mm, thickness; in the center was a thinner gray layer. The red color seemed to penetrate a definite distance from the surface, and where the piece was thin, the red strata met. Weathered edges were a uniform brown, but freshly broken edges showed the stratification. On heating the layering lost its original distinctness, and the gray color changed to brown, merging with the red. It would therefore seem probable that the original layering was due to the original firing of the piece, and the oxidation of the iron compounds from the surface.

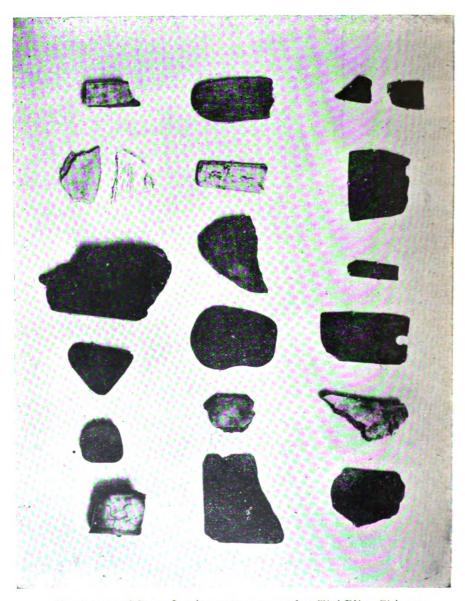
"Sample VI. A cord-marked sand-tempered sherd. Its total thickness was 6.7 mm., with a gray inner layer. The outer layers



Pieces of Pottery excavated near T'ai P'ing Ch'ang, Hanchow, Szechwan, March 6-14, 1934. They were all found in an ancient, undisturbed stratum of refuse from a kiln. They show a variety of markings and color. Now in the West China Union University Museum.







Fragments of Stone Implements excavated at T'ai P'ing Ch'ang, near Hanchow, Szechwan, March 6-14, 1934. These were all found in the undisturbed ancient kiln stratum, and furnish evidence, because of likeness of workmanship and materials, that the kiln is of the same age as the ancient grave where the knives, squares and disks were originally found. The objects are now in the Museum of the West China Union University.

were red and thin, about \$-18 mm. The stratification of color was visible even on a weathered edge, and was very distinct on a fresh edge. On heating, the red layers become narrower, and the distinction almost disappeared. Since the position of the layers changed on heating, one might conclude that it was due to the hring. But the layering in the original piece was very uniform and distinct; the effect of the firing must have been very uniform in the piece. The effect was not due to the weathering, or effect of the soil, for an

exposed edge exhibited the layers distinctly.

"Sample III. This sherd was of the second type, a gray body with onter vellow contings. The total thickness is about 6 mm... but the yellow layers were very thin. The gray layer shows through on exposed edges; on fracture the interior was seen to be black. On heating, the outer layers became brown, probably due to oxidation of iron. Heating did not affect the stratification, in fact, a partial separation of the layers, visible to the naked eye, was produced. This type of layering was almost certainly artificial. The black clay article may have been dipped in a wash of vellow clay, and dried at a comparatively low temperature, for the color of oxidation of iron had not been produced.

"Sample V. This sherd was of the same type as III, but the outer yellow layers were much thicker. On microscopic examination, the structures of the two kinds of layers showed no difference; fine structure, not vitrified. There was a thick black film over the onter layers. This disappeared on heating. It was probably, therefore, organic matter; either carbon applied purposely, or soot acquired in use, or dirt absorbed from the soil. The layering was not affected by heating, except that the yellow layer became red. This type of

layering was also probably produced purposely.

"Sample IV. This shord was pure gray, a fine hard pottery, with no evidence of layering. On heating, the outer surfaces acquired a thin yellow film. This would mean that the pottery was not fired at an exceptionally high temperature when made.

"Sample C/8754. This sherd was of the black-yellow layered type, with the thin black film on the exterior. The latter could be

burned off, indicating organic matter.

"Sample C/8645. This was a gray clay, with outer reddishbrown layers. There was very little change on heating, the stratification remaining distinct. This piece must have been fired at a higher temperature, for the iron was already oxidized. This would also indicate that other pieces of lighter color had probably not been subjected to reducing action in the soil. The red color of this piece had persisted.

"Sample C<sub>1</sub>8814. A light gray clay, with brown outer layers. The latter were very soft and indistinct, easily rubbed off. On heat-

ing there occurred a partial separation of the layers.

"Sample C/8555. This very interesting sherd had a center layer of coarse porous gray, very irregular in thickness. The outer layers were dark red, and actually met in places. The red was not similar to any of the other oxidized red colors. On the outer surfaces, on top of the red, was another thin gray film, which appeared to have been brushed on. There was no definite change on heating. This layering was certainly artificial, there being five layers in all, three gray and two red, alternating,

"Chemical Analysis. It was expected that a chemical analysis of the various layers of these potsherds would indicate whether or not the layering was artificial. Since many of the samples had yellow or red layers, iron determinations were made. however, the results of these determinations were inconclusive. No significant differences in the iron content of various layers were found. The

value averaged roughly 3% of iron for various samples.

"However, one interesting fact was discovered. Preparatory to the iron determinations, the powdered samples were digested with hydrofluoric and sulphuric acids. After this treatment, two of the black clay samples had insoluble residues of a black substance. This was filtered off, and proven to be carbon. Under the microscope it was similar in appearance to a sample of animal charcoal. One sample contained about 13% of carbon. Apparently the gray clay was blackened by admixture of charcoal in some form. It may have been coal powder, or charcoal, or soot.

"Conclusion. The sherds studied were of two distinct kinds. The first kind was a thick coarse pottery containing sand. It was yellow or red on the surfaces, and gray in the interior. This clay was probably iron-containing, and the red color produced in the firing. Conditions of firing were not uniform, for colors and thicknesses of layers were not uniform. However it is possible, that an iron-rich coat was applied on the gray clay, and the layers partially

blended,

"The second kind of pottery had a gray or black interior, with yellow outer layers. The black was probably produced by admixture of carbon, and the yellow layers applied afterward. The yellow may be simply a yellow clay, or a definite pigment may have been used. It was probably baked on at a relatively low temperature, for the color of oxidized iron was not present.

"A fairy high degree of technical skill must have been required

"A fairy high degree of technical skill must have been required for the manufacture of this pottery. Different colored clays and

pigments were used to produce a multi-layered pottery."

Mr. L. C. Walmsley, Principal of the Canadian School at Chengtu, who is a student of art and himself an artist, very kindly studied with the writer the Hanchow collection with special reference to the colors of the jades, stones, and pottery, and also lent the writer Bradley's standard color chart. The colors of the pottery as given below were determined by Mr. Walmsley and the writer by means of Bradley's color chart.

C/8440 is a fragment of a plate the color of which on the outside is a uniform light neutral gray. While the light gray pottery is not generally sand tempered, this piece is tempered with what

seems to be white sand.

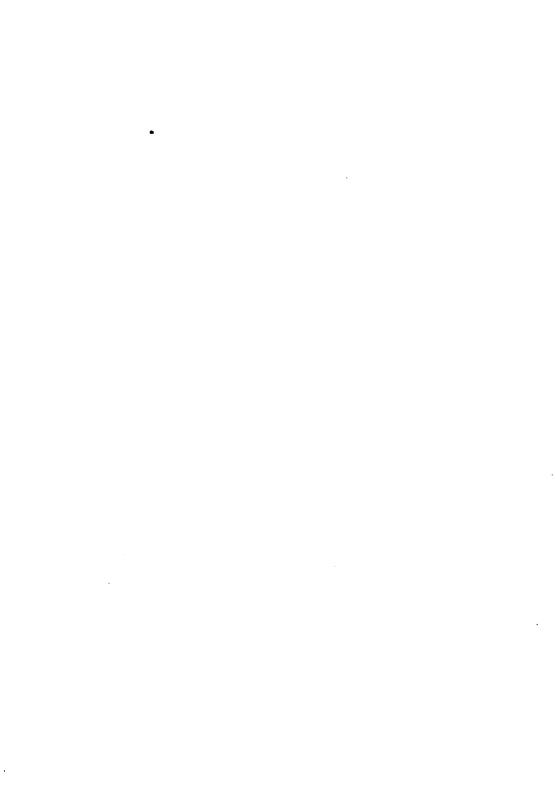
C/8690 is a leg of a three-legged earthenware pot or incense urn. It is conical in shape, hollow inside, and ends a dull point. It is sand tempered, and has been burnt to a light brick red.

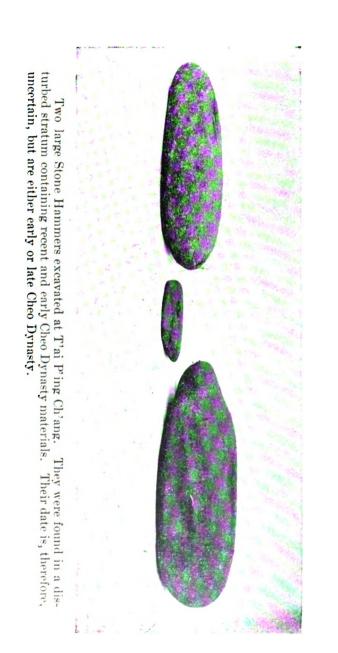
C/8672 is larger than C/8690, but very similar in shape. It is made of sand tempered clay, and the point has been broken off. The interior layer is a dark gray, while the surfaces have been burnt to a brick red. The outside surface has been rubbed very smooth and blackened with charcoal or smoke. These two fragments, especially C/8690, are possibly the same type as the clay li, the pot with three pointed legs, of the Yang Shao culture, found in Honan province.

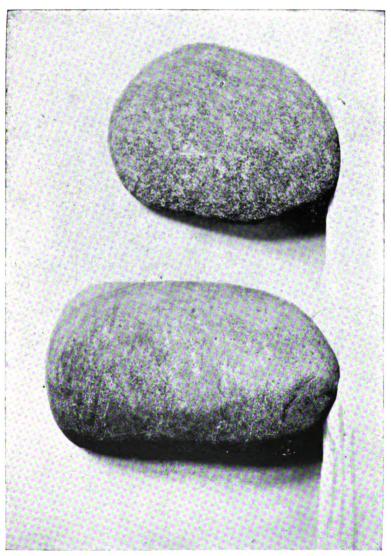
C/8624 is apparently an ornment pasted on a larger vessel, almost round and curving up at the point. It is burnt to a brick

red in some places.

C/8449 is a clay spindle whorl. The color is a light neutral gray, but in the depressions there is a reddish color due either to burning or to artificial coloring.







Side view of the same stones. Large stone: length, 233 mm., width, 130 mm., thickness 58 mm., Small stone: length, 190 mm., width, 133 mm., thickness, 42 mm.



C/8665 is a fragment of dark gray clay outside of which is a thick layer with an orange-yellow color. It consists of a large hollow piece, roundish in shape, on which there is another smaller hollow tube that has been ornamented with straight incised lines. This smaller tube decoration is probably an imitation of a rope.

C/8520 is a fragment of the curved base of a bowl or plate. The interior of the pottery is a yellow orange, tint no. 2, but the inside surfaces are a light neutral gray, which coloring was probably stroked on with a brush.

C/8447 is a sherd with an inside layer that is a dark neutral

gray and outside layers that are a very light gray.

C/8506 is a sherd whose interior is a light neutral gray, and whose outside surfaces are a deep brick orange. Either the outside color was made by firing, or the pot was dipped into clay which had previously been burnt red.

C/8569 is a sherd whose inside layer is a dark, almost black gray. The outside surface has been colored to a yellow orange, tint no. 2, and the inside surface is a yellow orange, tint no. 1.

C/8488 is a hollow clay tube that was probably the leg or stem of a bowl. It is larger in the center than on the two ends. There is an inner layer that is a light neutral gray, and an inner and an outer surface layer that is a light orange, tint no. 2. It is quite certain that the outside layers are due to dipping the vessel into fine, moist clay.

C/8441 is a bowl that is almost completely restored. It is made

of a fine clay, and the color is a light neutral gray.

C/8456 is a partially restored bowl. It is coarse and sand tempered, and has been colored through burning to a light brick red.

C/8459 is a small bowl, only partially restored. It is thin, and made of fine clay. The thickness varies from 1½ mm. to 4 mm. There is an inner layer which is very dark, almost black. This has been covered on both surfaces by thin layers of yellowish brown, which in turn have been colored black by the use of charcoal, smoke, or some similar material. The outside surfaces have been rubbed very smooth.

C/8442 is a long, round, hollow earthenware stem of a bowl. It is enlarged at both ends, but the base and the bowl have been broken off. The central layer is dark gray, while the inner and outer surfaces are each covered with a layer that is a light yellowish gray. This has been made by means of the potter's wheel.

C/9263 is a round earthenware vessel that is pointed at the bottom, a dull brick-red in color and with a contracted neck. There are mat or cord or cloth marks all over the outside of the vessel, although the marks are not very distinct. This vessel was found in fragments, and was completely reconstructed by Mr. Lin Min-Guin and the writer. It is the oldest complete earthenware vessel from Szechwan in the world. It closely resembles a type of vessel



found in the Yang Shao site in Honan province, although it is a little wider in proportion to its length.

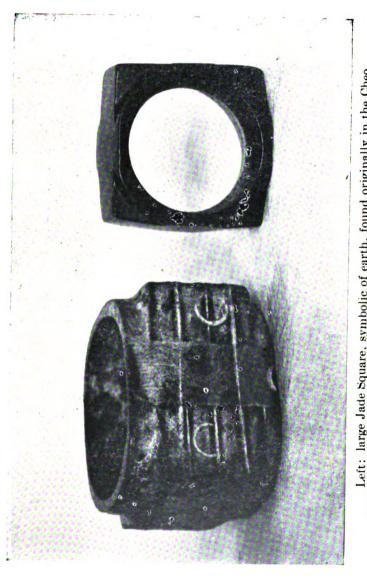
C/8504 is a piece of a long, slender, one legged bowl, or a vase. There is an inner black layer which has been covered on both the inner and the outer surfaces with a layer of light yellow or gray clay, which has been colored black on the outside by means of charcoal or some similar substance. This piece shows fine workmanship, and has been made by means of the potter's wheel.

C/8598 is a finely made sherd which is brick-red inside and a light warm gray on the two surfaces. There is an ornamentation that looks like an attempt to reproduce in clay a chain of transparent beads with the inside thread visible. In the Preliminary Reports of the Excavations at Anyang, part 1. is a three-legged earthenware vessel having exactly the same kind of an ornamentation, which Dr. Li Chi, the great Chinese archaeologist, describes as an imitation of a silk ribbon or band. Dr. Li's interpretation is probably the correct one, but the remarkable thing is that exactly the same ornamentation has been found in both the Anyang and the Hanchow cultures, and the Anyang culture is definitely dated from 1400 to 1122 B.C., during the Yin dynasty.

There are strong resemblances between the Hanchow collection and the Yang Shao collection from Honan as described by Dr. J. G. Andersson. Both have large and small stone axes, chisels, knives, pestles or hammers, and flat disks, and in pottery three legged urns, cord-marked round vessels with contracted necks, pointed at the bottom, and brick-red in color, spindle whorls, and both cord-marked and incised bowls and pots. In both cultures the potter's wheel is found. In neither site were there metal objects or any signs of writing. An important difference is that there is painted pottery in the Yang Shao collection but none in the Hanchow collection.

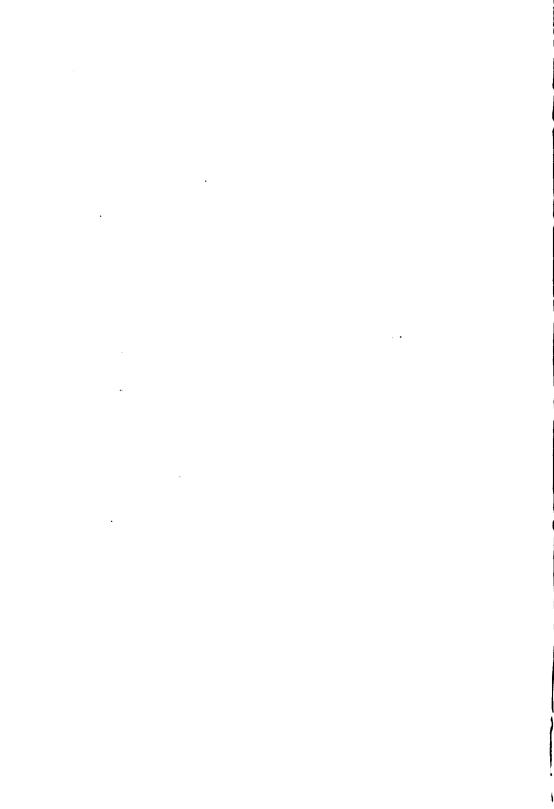
There are some striking resemblances as well as differences between the collection from Sha Kuo T'un, in Fengtien, which Dr. Andersson has identified as neolithic, and the collection from Hanchow. Both have stone axes, and chisels. Both have cord-marked and incised pottery. Both have large and small stone beads that are much alike in form and make, although those from Sha Kuo T'un are more rounded at the edges. Both have round flat stone disks. Both have cord-marked and incised pottery, and black, monochrome pottery.

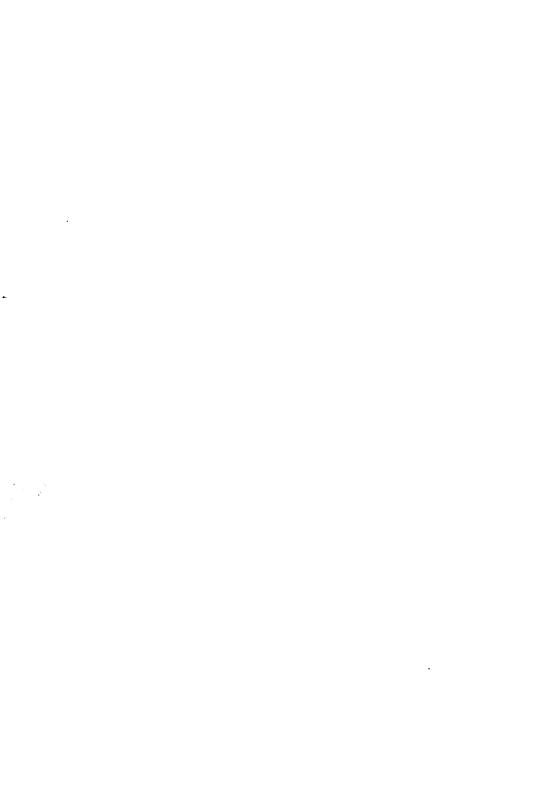
The Anyang collection from Honan shows very striking differences from the Hanchow collection. Naturally there are some resemblances, such as the stone axes, knives, and chisels, and incised and cord-marked pottery. But the differences are far more striking. In the Anyang collection there is an abundance of bronze implements, bones on which there is a primitive kind of Chinese writing, bone implements, and painted colored pottery, not even a trace which was found in the site near Hanchow.



Left: large Jade Square, symbolic of earth, found originally in the Cheo Dynasty grave by Mr. Yen, and presented to the West China Union University Museum by Rev. V. H. Donnithorne, M.A., M.C. Maximum diameter 75 mm.

Right: Jade Square presented by General T'ao of Hanchow, Sze. Height, 30 mm. Diameter 57 mm.







Long stems of Stem Bowls, or of earthernware vessels standing on one leg. The frequency of these hollow eartherware tubes in the excavation, and their length, indicate that the early Cheo Dynasty people of Szechwan made many stem bowls with long or high legs. Length of longest is 228 mm., diameter, 32, mm.

The two things in the Hanchow collection that seem to compel us to give it a date later than the aeneolithic are the evidence of sawing with wire saws that is found on jade knives, swords and chisels and the close resemblance of the jade squares, disks, swords, and chisels, to those used by the Chinese during the Cheo dynasty. Even here there is an important difference. On the jades of the Cheo dynasty are often seen carved symbolic images of birds and animals, but there is nothing of the kind in the Hanchow collection.

The West China Union University Museum of Archaeology has collections of Szechwan Chinese pottery dating from the early Han dynasty to the late Manchu, but the Hanchow pottery is so different from even the Han dynasty pottery that it seems necessary to allow centuries for one to develop into the other. On the other hand, evidences can clearly be seen of cultural contacts and diffusion between the Hanchow culture and the known neolithic and aeneolithic cultures in central and northern China. Either the people who lived in Hanchow were non-Chinese whose culture had been greatly influenced by the early Chinese cultures of central and northern China, or Chinese people and Chinese culture have been in Szechwan much earlier than has formerly been supposed.

Any dating at present must be in the form of a tentative hypothesis, which may be altered in the future or confirmed by the securing of more archaeological evidence, and the more careful first hand comparing of the Hanchow collection with the earliest collections in other parts of China. We believe that the latest date that should be given to the Hanchow culture is the beginning of the Cheo dynasty, or about 1100 B.C., but that further evidence may make it necessary to date it at a much earlier period, and that its earliest dating would be aencolithic. In this collection we have the oldest grave goods, the oldest jades, and the oldest pottery that have been found in situ in Szechwan province.

Soon after the Hanchow collection was completed, a letter was received from Mr. Ko Mo Jo, 郭沫若, who is one of China's Puc h. greatest scholars and authors, asking for pictures and diagrams of the artifacts secured in the Hanchow excavation. These were gladly sent to him. Later the following letter was received by Mr. Lin Min Guin, assistant curator of the museum, and two copies of Mr. Ko Mo Jo's latest book on Chinese archaeology;

"Mr. Lin Min Guin; -I was truly glad to receive your letter and thatof Mr. Graham, I thank you very much for your kindness in sending me so many photographs, drawings, and the reprint of Mr. Dye's article in the Journal of the West China Border Research Society, and writing to me so fully about the excavation. You are really the pioneers in (scientific) archaeology in West China. I hope that in the future you may make even greater progress in this work, studying the visible monuments and ancient structures, carvings, graves, aborigine caves, etc. This work will yield very valuable fruits. Then, that there will very quickly follow excavations in search of the pre-history of Szechwan, including races, customs, and a know-

ledge of their contacts with other parts of China. These are very important problems. I regret very much that I am unable to return

to China and help you excavate.

"The artifacts that you secured at Hanchow, such as jade squares, jade disks, jade knives, etc., are in general similar to those excavated in northern and central China. This is evidence that Western Shuh (Szechwan) had previously had cultural contacts with northern and central China. The name Shuh is found among the inscriptions on the bone tablets of the Yin dynasty. When the Cheo people fought the Yins, the people of Shuh (Szechwan) went and assisted the Cheo armies. In addition, the kinds of pottery found at Hanchow are among the earliest types. Your decision that the date is somewhere about the beginning of the Cheo dynasty is probably dependable. That is all I can say now. When in the future there are excavations elsewhere in Szechwan, they will show how widely this culture spread, and certainly more dependable evidence will appear.

"I am very glad to comply with your request to send you copies of my books on Chinese archaeology, and have instructed the publishers to send one of my recent books to the museum and one to Mr. Graham. Whenever I have anything published in the fu-

ture I will send you copies.

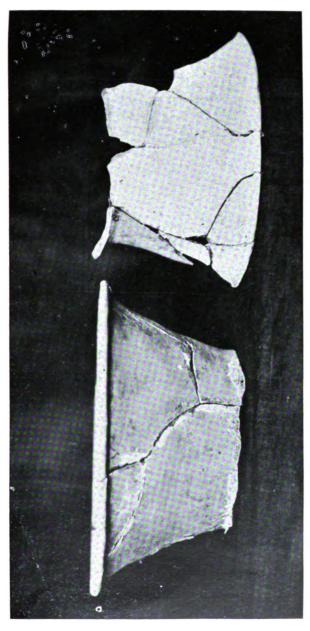
"I am very busy now, and this is all I have time to write,

"I hope you will do your best.

MOJO.

July 9, 1934."

The writer wishes to express his deep appreciation and sincere thanks to Rev. V. H. Donnithorne, without whose assistance the excavation would probably never have been made; to Magistrate Lo, Hanchow, for providing ample protection, sharing the expenses of the excavation (which was done in his name as his excavation under the supervision of the museum curators), for his very courteous and considerate treatment, and for finally presenting the entire collection to the West China Union University Museum of Archaeology to be permanently preserved there for people of China; to the officials and gentry of Hanchow, many of whom rendered valuable assistance; to Mr. Lin Min Guin, assistant curator of the West China Union University Museum of Archaeology, who shared the responsibilities and labors of excavating, and assisted in the repair of the pottery and in the writing of this preliminary report: to the officials of the Civil Government, the military governments, and the Educational Bureau of Szechwan for issuing the necessary passports and giving necessary approval and protection; to Mr. L. C. Walmsley for lending his color chart and assisting in the determining of colors; to Prof. D. S. Dye for help in the study of the stone implements, and to Prof. H. B. Collier for making a careful chemical analysis of the pottery. Thanks are also due the Harvard-Yenching Institute, which provides the funds which make possible the development of the West China Union Museum of University Archaeology and the carrying on of its program.



Two partially restored gray, unglazed, Earthenware Pots from T'ai P'ing Ch'ang near Hanchow, Sze. These date from the early Cheo Dynasty, about 1000 B.C. Before the excavation of March, 1934, no pottery from Szechwan of pre-Han Dynasty date was known to exist. Diameter at rim of the left hand vessel is 255 mm. Now in the West China Union University Museum.







The vessel is colored a dull brown. Depth 110 mm. Width 184 mm. West China Union University Museum. few were lost, but was restored by Dr. D. C. Graham and Mr. Lin Min-Juin. Dynasty, about 1000 B.C. preserved in any museum. The oldest complete Clay Bowl or earthen vessel from Szechwan province It was broken into many fragments, of which a Its date is probably the beginning of the Cheo

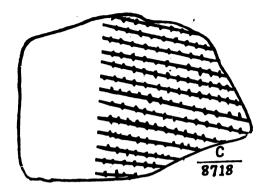


Fig. 6. Brownish gray sherd, 5 mm. thick, grit tempered, cord marked.

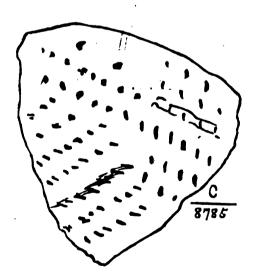


Fig. 7. Coarse, sand-tempered sherd, dull, reddish brown color. Cord-marked. Thickess 5 m.m.

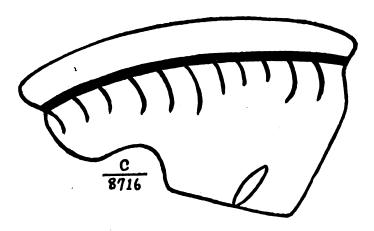


Fig. 8. A light reddish-brown sherd, coarse, grit or sand tempered.

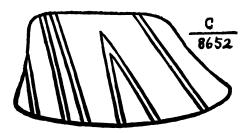


Fig. 9. Gray sherd.

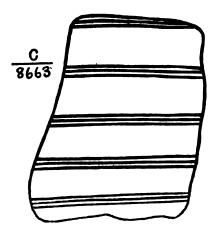


Fig. 10. Light brown sherd.

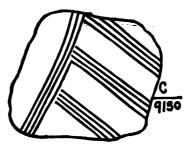


Fig. 11. Brown sherd, colored gray on the outer surface. The ornaments are lines scratched on the surface with a four-toothed comb.

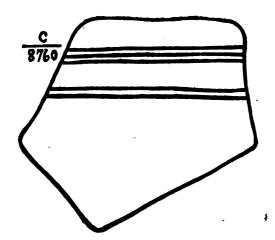


Fig. 12. Gray sherd.

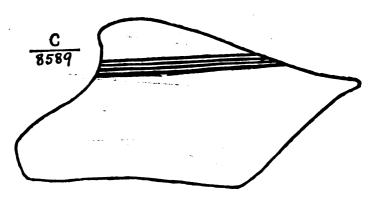


Fig. 13. Brownish gray sherd.

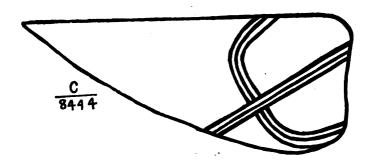


Fig. 14. Gray sherd, outside light brown.



Fig. 15. Gray sherd, colored light brown outside.

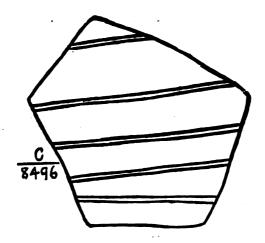


Fig. 16. Thin gray or dull-brown sherd.

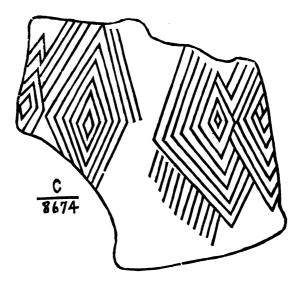


Fig. 17. Sherd, light brown outside, light gray inside.

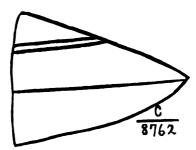


Fig. 18. Gray sherd, colored light brown outside.

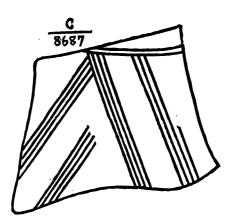


Fig. 19. Sherd, outside surface brown, inside surface gray.

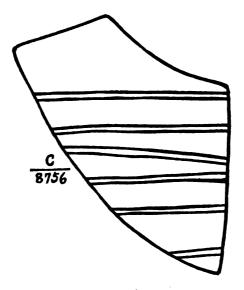


Fig. 20. Gray sherd.

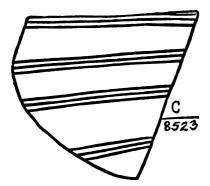


Fig. 21. Gray sherd.

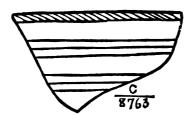


Fig. 22. Gray sherd colored light brown on the outer and inner sides, and ornamented by triple lines.

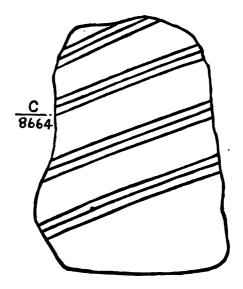


Fig. 23. Light brown sherd with triple-line ornamentation.

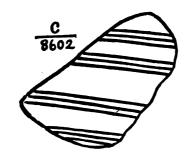


Fig. 24. Small sherd, gray inside, outside light brown, ornamented by triple line.

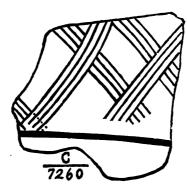


Fig. 25. Dark gray sherd, ornamented by four-lined bands.

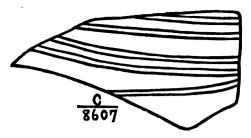


Fig. 26. Gray sherd ornamented by two-line bands.

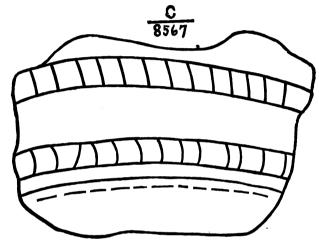


Fig. 27. A coarse, thick, sand-tempered sherd, dull, grayish brown in color, burnt to a reddish brown outside; ornamented by two crude immitations of ropes.

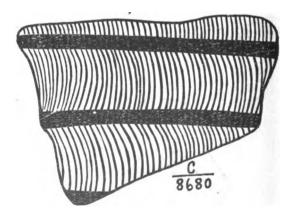


Fig. 28. Sherd decorated with ridges and depressions, made by pressing the fingers on the plastic clay. Gray, with inside and outside coated yellow. The inside shows the coating of light yellow. On the outside the yellow coating has been colored black.

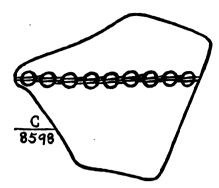


Fig. 29. Red sherd, with the inside and the outside surfaces painted gray, ornamented by a fine decoration, which is either an imitation, of a metal chain or of a string of transparent, round beads.

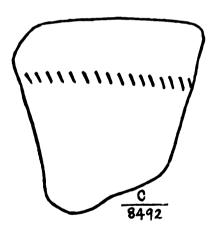


Fig 30. Gray sherd, coated yellow on the outside, with a twisted-cord decoration.

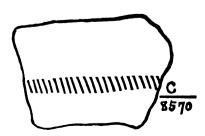


Fig. 31. Reddish sherd with a twisted cord-like decoration.

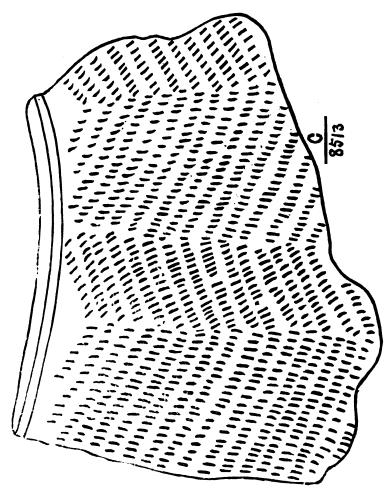


Fig. 32. Coarse, sand-tempered rim sherd, cord marked.

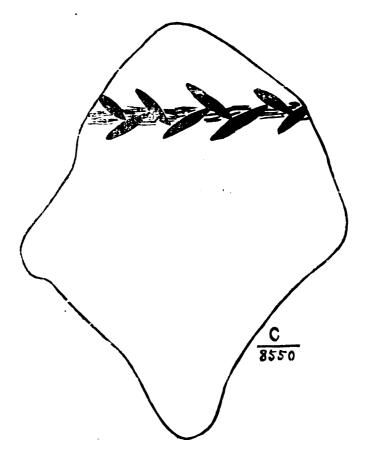


Fig. 33. Sherd, burnt brown inside and outside, with ornamentation of twig and leaves.

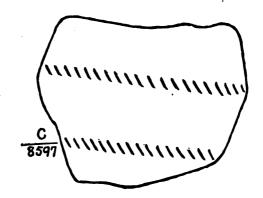


Fig. 34. Dull yellow sherd, with two imitations of twisted cords.

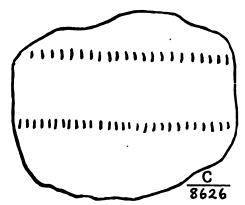


Fig. 35. Red sherd ornamented by two imitations of twisted cord.

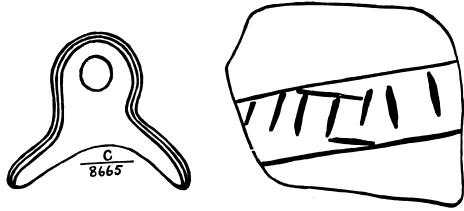


Fig. 36. Left, adge view of sherd, inside is gray, the outside has a thick coating of reddish brown, and a final thin coating of yellow.

Right, side view of same sherd showing the decorations on the high ridge.

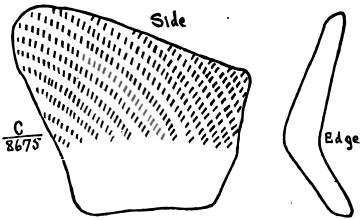


Fig. 37. Brownish gray fragment of the bottom and side of a cord-marked pot. The cords are slightly

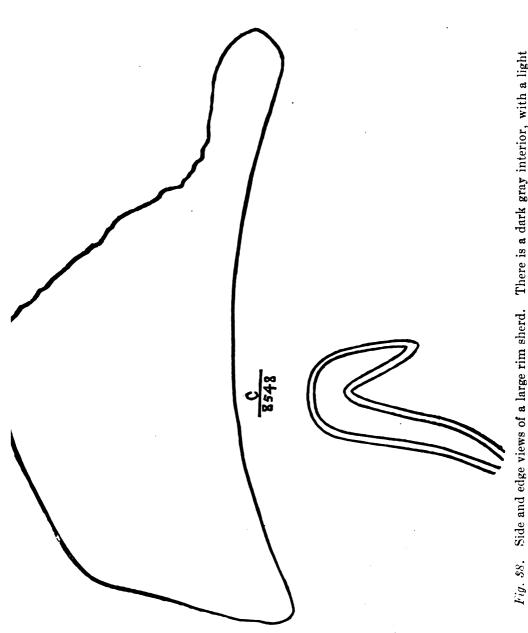


Fig. 38. Side and edge views of a large rim sherd. There is a dark gray interior, with a light yellow coating, which has finally been colored blace. The pot has been well smoothed,

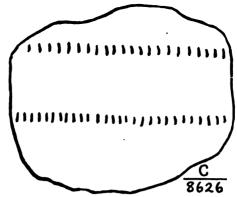


Fig. 35. Red sherd ornamented by two imitations of twisted cord.

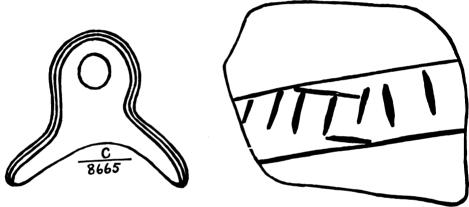


Fig. 36. Left, adge view of sherd, inside is gray, the outside has a thick coating of reddish brown, and a final thin coating of yellow.

Right, side view of same sherd showing the decorations on the high ridge.

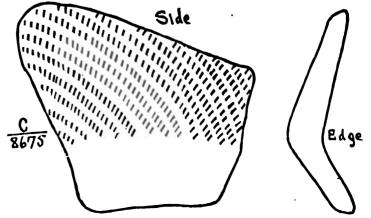


Fig. 37. Brownish gray fragment of the bottom and side of a cord-marked pot. The cords are slightly

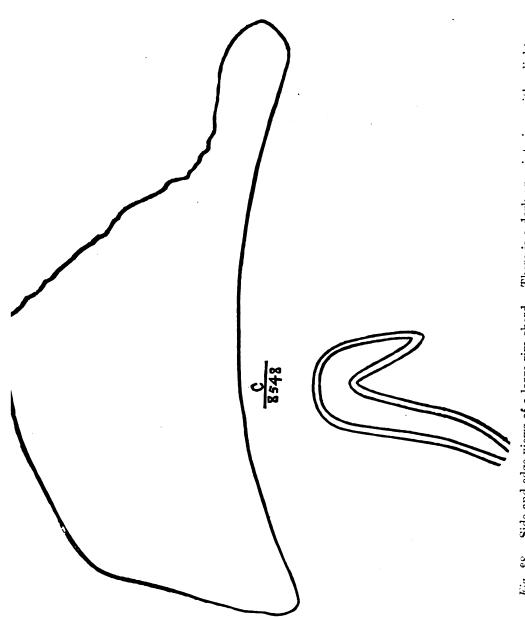


Fig. 38. Side and edge views of a large rim sherd. There is a dark gray interior, with a light



Fig. 39. Rim sherd, inside gray, outside covered by a light yellow clay coating.

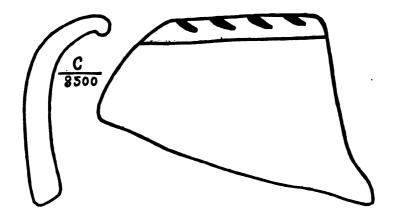


Fig. 40. Two views of a rim sherd made of brown clay, but colored inside and out by a thick layer of gray clay.



Fig. 41. Rim sherd, 5 mm. thick, coarse, dark-brown and sand-tempered.

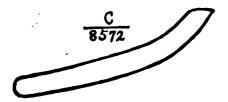


Fig. 42. Rim sherd, probably of a lid or a plate or shallow bowl, coarse, brown, sand-tempered, colored black outside. Width 5 to 6 m.m.



Fig. 43. Rim sheed of gray clay, thickness 6 m.m



Fig. 44. Rim sherd of dark gray clay, covered on the outside surfaces with yellow clay, well smoothed, and finally colored black. Thickness 3 m.m.



Fig. 45. Coarse, sand-tempered rim sherd.

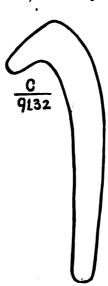


Fig. 46. A coarse, sand-tempered rim sherd. Inside is a dull brownish-gray; outside colored black; cord marked.

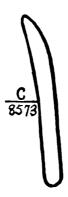


Fig. 47. Simple, light brown rim sherd.

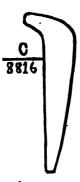


Fig. 48. Sand-tempered rim sherd, baked to a dull brick red.



Fig. 49. Rim sherd, light gray with a heavy brown coating outside. 4 to 5 m.m. thick.

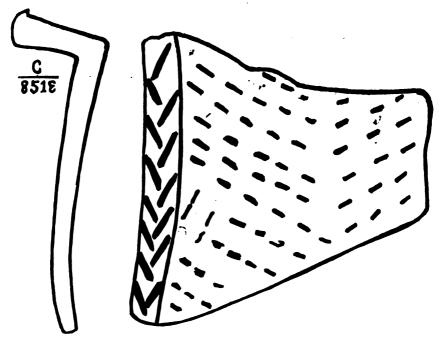


Fig. 50. Rim sherd of dark brown, sand-tempered clay, outside cord-marked.

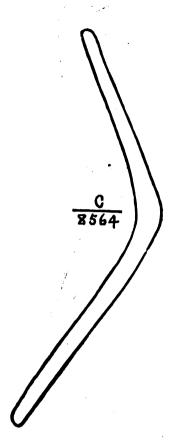


Fig. 51. A wide-rimmed sherd of a large jar made of sandtempered clay, colored a dull red by baking. Thickness 3 to 6 m.m.

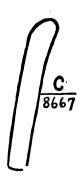


Fig. 52. Simple rim of light gray clay, colored a light brownish yellow on the exposed surfaces.

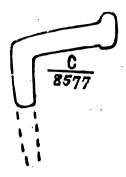


Fig. 53. Rim sherd of sand-tempered clay, dark inside, light red outside.



Fig. 54. Rim sherd, dark gray inside, outside of which is a dull brick-red clay layer, which has been colored black. The red color was probably caused by burning.

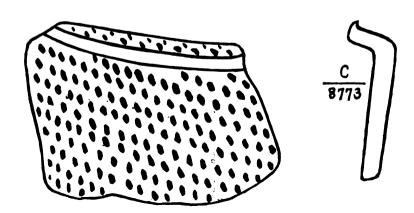


Fig. 55. A light brick colored sherd of coarse, sand-tempered clay, cord marked.

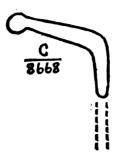


Fig. 56. Rim sherd, width, 27 m.m.; thickn ss 5 m.m. gray inside, with light yellow surfaces.



Fig. 57. Rim sherd of sand-tempered clay, burnt to a brick-red.

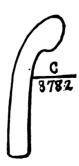


Fig. 58. Light gray rim sherd. Thickness 5 to 6 m.m.

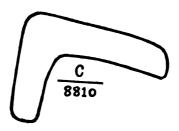
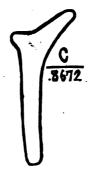


Fig. 59. E lge of coarse, sand-tempered rim sherd.

The material is gray inside, and a dull, reddish brown outside.



Fig. 60. Rough, coarse, sand-tempered rim sherd, dark brown color, cord marked.



Eig. 61. Gray and light brown rim sherd.





Fig. 62. Coarse, sand-tempered rim sherd. The outside is cord-marked. The edge of the rim has a fern or vine design.

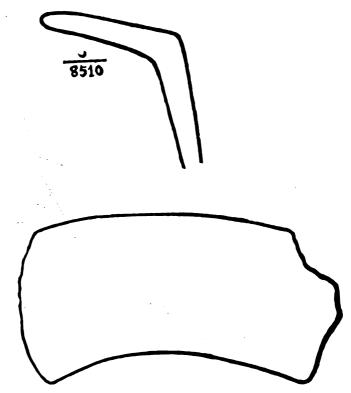


Fig. 63. Top and edge views of a light gray rim sherd.

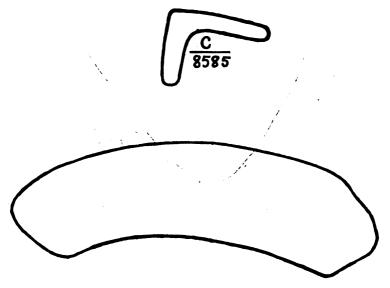


Fig. 64. Top and edge views of a light brown rim sherd.

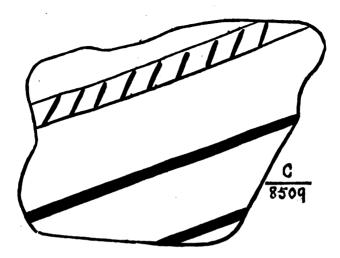


Fig. 65. Gray sherd coated yellow inside and ouside. Two depressions and two ridges made by the human finger, and one ridge imitating a twisted cord.

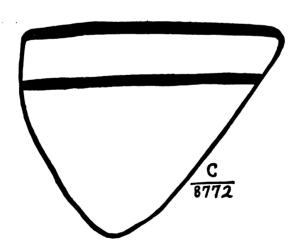


Fig. 66. Sherd with two ridges and a rounded depression made by the imprint of a human finger.

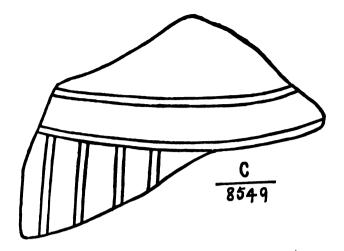


Fig. 67. Gray sherd with outside surfaces colored brown.

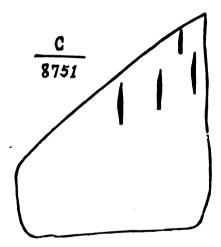


Fig. 68. A light gray sherd, decorated by incisions made by a sharp pointed instrument.

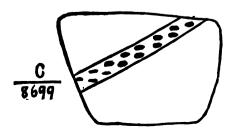


Fig. 69. Gray sherd ornamented with an imitation cord or rope.

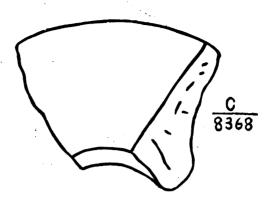


Fig. 70. Fragment of a dark neutral gray jade disk, with a very light gray patination; found in the undisturbed ancient kiln stratum.

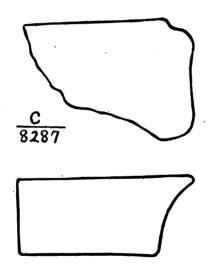


Fig. 71. Fragments of a thick jade implement, ground flat on the sides, with a smooth square edge. One end is concave-circular. It has a light gray patination. This was found in the undisturbed stratum ancient kiln stratum; color, a very pale green yellow, with mottled cool light gray.

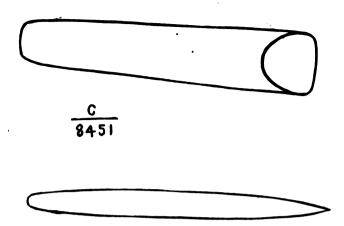


Fig. 72. A fine red jade chisel, said to have been found in the ancient grave.

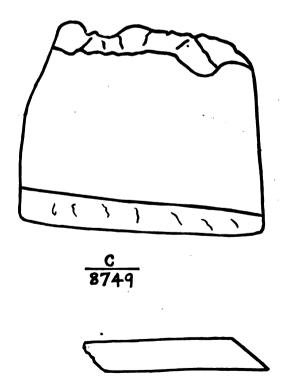


Fig. 73. Sandstone knife from the ancient kiln stratum flat on both sides, edge ground straight and smooth; color, a warm dark gray.

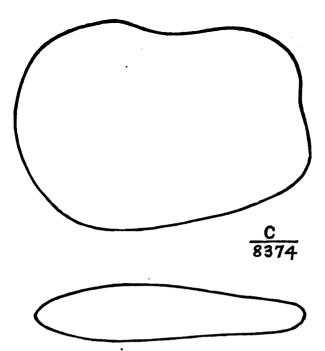


Fig. 74. A small igneous rock, ground into a hatchet for hafting. Found in the grave-pit. A foundation color of dark green gray.

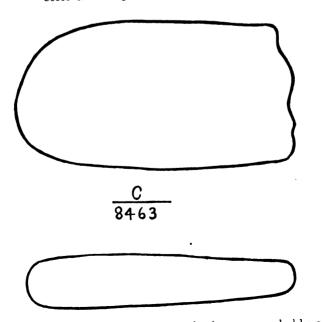
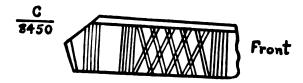


Fig. 75. Small, gray igneous stone inplement, probably a pestle. Sides ground flat, and edges squared off. Found in the ancient kiln-stratum. Dominant color is a pele gray, mixed with a darker neutral



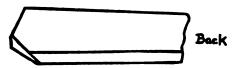
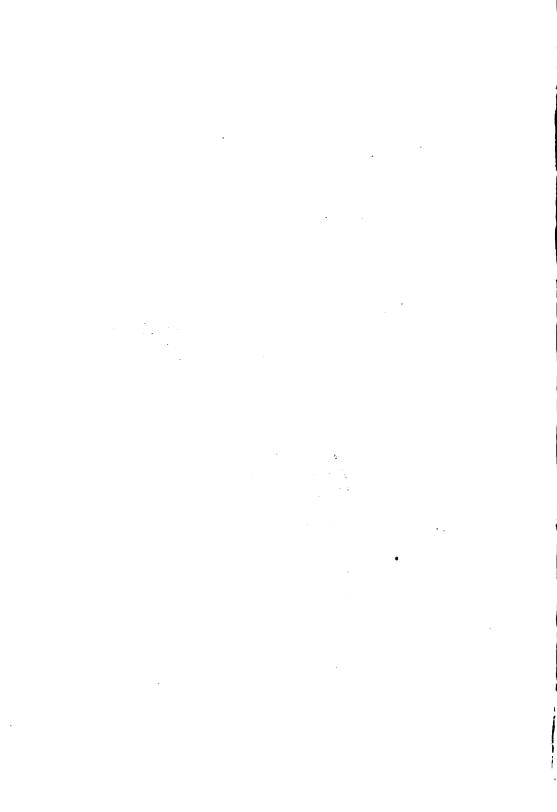


Fig. 76. A stone boring implement excavated near T'ai P'ing Ch'ang. It was found in the ancient kiln refuse stratum. Length 44 mm.; width 15 mm.; thickness 5+ mm.



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- 5. Andersson, J. G. An Early Chinese Culture. Bulletin of the Geological Survey of China, Number 5, 1923, Peking.
- 6. Andersson, J. G. The Cave-Deposit at Sha Kuo T'un in Fengtien, Geological Survey of China, Palaeontologia Sinica, Series D. Volume 1, Fascile 1. Peking 1923.

# THE WEST CHINA UNION UNIVERSITY MUSEUMS

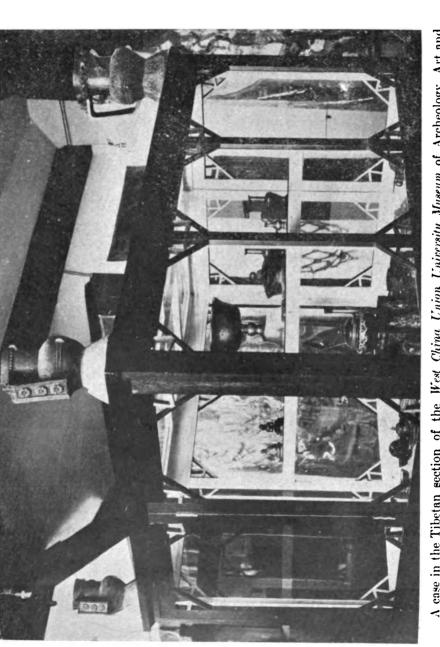
#### D. C. GRAHAM

In the West China Union University three museums are being developed. They are the Natural History Museum, the Museum of Medical and Dental Sciences, and the Museum of Archaeology, Art, and Ethnology. The Natural History Museum is in the Biology Building, the Medical-Dental Museum is in the Medical and the Dental School buildings, and the Museum of Archaeology, Art, and Ethnology is on the second floor of the Library-Museum Building.

In 1933 the Natural History Huseum purchased Rev. Geo. M. Franck's collection of moths and butterflies. It consisted of about four thousand specimens in two excellent cases, each specimen having its correct scientific name. The collection was the result of about twenty years of work by Rev. Geo, M. Franck, F.R.G.S. Many of the birds have been collected by Dr. Elliott and by Rev. A. P. Quentin. During the past year three shipments have been received from the United States National Museum, consisting of over six hundred type specimens of birds, mammals, and insects. All these specimens were collected in West China, and it is expected that such shipments will continue for a number of years. In this way the Natural History Museum will become an important center for the study of the natural fauna of West China.

The Museum of Medical and Dental Sciences contains many specimens from Europe, Canada and the United States, but most of them have been secured in medical and dental clinics in Chengtu. The specimens are constantly studied by students of the College of Medicine and Dentistry and of the department of Pharmacy. Some of the collections are practically unexcelled in any part of the world, and all of them are worthy of careful scientific study. Of special interest to sightseers are the skulls of an elephant, a hippopotamus, and an alligator, plaster paris casts of the skulls of the Piltdown woman and of Pithecanthropus Erectus, and skeletons of a chimpanizee and a gorilla.

In the department of anatomy, the human organs preserved in liquid, the model casts of parts of the human body and of animals, the cross sections of the human body in gelatin, and the very large collection of human bones, are of great interest to students and scientists.



A case in the Tibetan section of the West China University Museum of Archeology, Art and Ethnology. The large bowl is an "everlasting lamp," used in worshipping idols, and never allowed to be extinguished. Below is a hat worn by a great lama while on a journey, and also a set of jewels said to have been worn by the mother of a Panchan Lama. Above are ornamented bronze pitchers.



In the department of pathology, there are approximately 1500 macroscopic or gross specimens. The majority are organs or portions of organs of human individuals, secured at autopsy or following surgical procedures, and represent fairly comprehensively commonly found pathological conditions. Approximately seven tenths of these specimens have been secured locally; the others have been brought from the west and are specimens which, because of the extreme difficulty of securing permission for autopsy, are not easily obtained locally. There is included also a fairly complete collection of the more important parasitological specimens.

There are about four thousand microscopic specimens mounted and stained, illustrating the commonly encountered pathological conditions in the various organs. These have in part been prepared by the technical service in the college, and in part have been secured from the West. Additions are constantly being made to this collection through the college sectioning service.

The macroscopic and the microscopic specimens mentioned above are used in connection with the teaching of both medical and dental students.

There is a special oral collection of approximately seven thousand microscopic sections. This collection constitutes a comprehensive mass of material for teaching and research covering normal and pathological conditions of the mouth and teeth. Several hundred of these are ground non-decalcified sections, illustrating normal and abnormal conditions of the hard tissues. The great majority are decalcified sections, stained, and mounted in serial, thus permitting their use for teaching and research. These sections have been prepared in part locally, but the great majority have been prepared by the head of the oral division when on furlough in America. A few specimens have been secured from This collection has been considered by authorities in America to be one of the most valuable in existence. In size the sections range from single teeth in position in the surrounding bone and soft tissue to large portions of the superior or inferior maxilla with teeth "in situ."

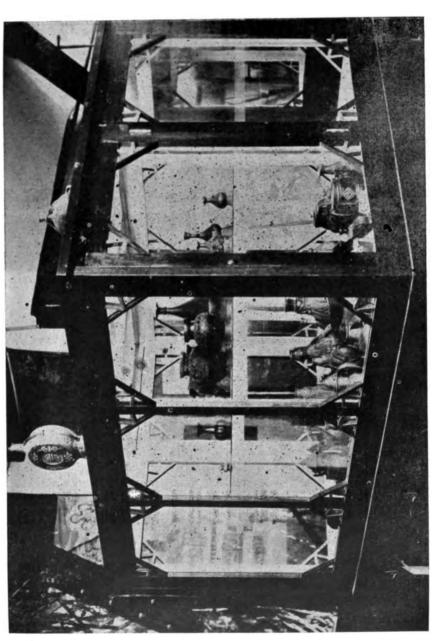
There is also a collection of several thousand teeth and jaws secured from various animals, dogs, cats, and particularly albino rats. Material from the jaws of monkeys is now in course of preparation. Additional celloidin sections of human material to the extent of several thousand sections is also in process of preparation. There is a number of jaw blocks of human individuals specially secured in Peking and awaiting preparation.

There is a collection of approximately six thousand teeth secured with histories from the surgical clinics. Also a number of dried jaws of albino rats illustrating various pathological conditions.

In addition to the above there are four hundred and thirtyfive models of human heads in clay, illustrating various oral and facial lesions. These have been modelled from cases treated in the University Dental Clinic or the Si Shen Tsi Dental Hospital. They are all in natural or life-life colors. The department of anatomy has also about three hundred enlarged plaster paris casts of human teeth, and one thousand one hundred and seventy-seven plaster paris casts of upper and lower teeth and jaws. These show the contours of both teeth and soft tissues, and are a very valuable source for comparative study of Chinese mouths. In the department of odontology there are also approximately two hundred enlarged models of single teeth for cavity preparation. In the department of prosthodontology there are also two hundred and seventy-five plaster models and fifty models in metal, celluloid, or other material. Finally, there are about five thousand and five hundred abstracted teeth from China, dried, or in fixatives, which are used for study in the various departments.

The work of collecting for the Museum of Archaeology, Art, and Ethnology began in the year 1919, and since then it has gone on more or less steadily. Prof. D. S. Dye has been curator most of the time, and the most fruitful collaborators have been Rev. T. Torrance, F.R.G.S., and Rev. J. Huston Edgar, F.R.G.S., and F.R.A.I. By the fall of 1932 the museum contained about six thousand objects, many of which are of great value to science, and some of which are to be found in no other museum. Since that time the museum has grown very rapidly. Eight large-plate-glass cases and fourteen wall cases have been added, and the number of specimens is at the time of writing, eleven thousand, six hundred and thirty-four. The museum possesses the largest collection of Ch'iang artifacts to be found in any museum, which includes ancient garments and leather armor, embroidered shoes and belts, and pottery ranging in age between five hundred and two thousand With the help of the lamas themselves, a large section of the museum, including three plate-glass cases, has been arranged in the form of a yellow Lama Tibetan shrine or temple, and filled with rare and valuable sacred objects—probably the only one of its kind in any museum. It includes valuable paintings, gilded vases, large gilded images of Maitreya and Kuanyin, bronze and tsamba idols, beautifully ornamented teapots, and sacred drums, bells, thunderbolts, horns, trumpets, clothing, and rosaries.

In the Chinese section there is a large collection of Chinese paleolithic and neolithic stone implements, almost entirely the work of Rev. J. Huston Edgar. There are about seven hundred Manchu Dynasty embroideries, three hundred snuff bottles (amber, jade, composition, crystal, glass, porcelain, and other materials); over a thousand porcelain vases, plates, jars, medicine bottles, and incense urns; a fine collection of bronze bowls, jars, vases, mirrors, lamps, hairpins, spear points, and are heads dating from the Cheo Dynasty to the Chinese Republic; a case of ancient and modern jades; a collection of about 1500 Chinese coins, some of which are very rare and valuable, and a collection of beads or



A case in the Tibetan section of the West China Union University Museum of Archeology, Art and Ethnology. Inside are bronze teapots, wine jars, wide and narrow mouthed brass and bronze vases and pottery.



rosaries, and other body ornaments of the Manchu Dynasty. The one case containing the results of the Hanchow collection and excavation includes the oldest jade implements, the oldest grave goods and the oldest pottery from Szechwan by approximately one thousand years. The funds for conducting the Museum of Archaeology, Art, and Ethnology are provided by the Harvard-Yenching Institute.

The following list of specimens in the West China Union University museums gives some idea of the size and value of the collections. It is quite probable that in the future the West China Union University will be noted for its museums.\*

# LIST OF SPECIMENS IN THE WEST CHINA UNION UNIVERSITY MUSEUMS

1. THE MUSEUM OF ARCHAEOLOGY, ART, AND ETHNOLOGY.

Chinese		9127	specimen <b>s</b>
Tibetan		1164	-
United States		378	
Ch'iang aborigi	nes	289	
Japanese		133	,
European		274	
Palestinian		79	•
Australian		78	
Lolo		31	
Miao		<b>22</b>	
Canadian		15	
African		14	
Siamese		9	
Javanese		6	
Turkish		5	
Hongkong		5	
Syrian		4	
Burmese		1	
	Total	11634	

<sup>\*</sup>Note; -Dr. W. R. Morse is director of the Museum of Medical and Dental Sciences; Prof. Ho Wen-Chuin is directory the Natural History Museum and Dr. D. C. Graham is director of the Museum of Archaeology, Art, and Ethnology.

# 136 JOURNAL W. C. BORDER RESEARCH SOCIETY

# II. THE MUSEUM OF NATURAL HISTORY

1. Zoological Specimens			
A. Cestods	60		
B. Nematods	130		
C. Annelids	65		
D. Shells	800	•	
E. Crustaceans	85		
F. Spiders	110	-	
G. Insects	7400		
H. Fishes	120		•
I. Amphibians	70		
J. Reptiles	85		
K. Birds	450		
L. Mammals	56		
M. Complete mammal			
skeletons	53		
N. Skulls	37	Total	9521
2. Botanical Specimens			
A. Fungi	72		
B. Ferns	430		
C. Flowering plants	850	Total	1352
<b>.</b>			
3. Geological Specimens			
A. Fossils .	600		
B. Minerals	840		
C. Rocks	1260	Total	2700
		Total	13573

# III. THE MEDICAL-DENTAL MUSEUM

1.	The	Department	of	Pharmacy and	Pharmacology.
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. 1	ne Department of Fnarmacy	j an <b>a r</b> narmacow <b>gy</b> ,	
Α.	Chinese crude drugs,	372	
В.	Western crude drugs,	582	
C.	Sutures and ligatures,	98	
D.	Chemicals,	100	
$\mathbf{E}.$	Essential oils,	30	
F.	Berkfelt filters,	3	
G.	Miscellaneous pharm-		
	aceutical preparations,	200 Total	

# 2. The Department of Pathology.

A. Macroscopic specimens, (body organs, &c.)

1380



Clay Images from Han Dynasty cave-tombs. From the Museum of the West China Union University.



# THE WEST CHINA UNION UNIVERSITY MUSEUMS 137

B. Microscopic specimens (colored). 3500 C. Microscopic sections of teeth and mouth 7000 Total	12000
3. Department of Dentistry.  A. Plaster paris casts of heads  B. Plaster paris casts of single teeth with parts of jaws  C. Plaster paris casts of teeth with parts of jaws  D. Enlarged models of single teeth, loid, plaster paris, etc.  Extracted Chinese teeth	
dried in fixatives 5500 Tota	1 7937
4. Department of Anatomy.  A. Complete skeletons  B. Organs, etc. preserved in liquid  C. Charts of the human body  D. Vats containing partially dissected human bodies  E. Sets of anthropological instruments  F. Didsarticulated skulls  G. Human bones  H. Sections of human body in gelatin (cross sections)  I. Human skulls, 35 Chinese 13 Tibetan  J. Limbs of domestic animals  K. Modelled casts of parts of the human body and of animals  L. Animal skulls  M. Human body with transposed viscera  N. Mounted specimens of animals and reptiles	
Total	6810
Total	28127
Number of specimens in the archaeological museum Number of specimens in the natural history museum Number of specimens in the medical-dental museum	m 13573 n 28127
Grand total	53334

## AN ARTIFACT (?) FROM A LANTERN LENS.

#### T.C.H.

Mr. J. H. Edgar sent a transparent piece of worked material to the writer with a request for consideration and reply. Later he requested that the "artifact" be written up for the Journal.

At first glance the specimen seemed to be a worked piece of transparent amorphous material, designed to be used as an edged or pointed tool or weapon. At least eleven chips with concoidal fracture had been taken from the piece. The edges had not been dulled by excessive use after such working. One almost flat and polished side immediately suggested a lens that had been roughly handled by carelessly shoving around over a rough surface for some considerable time, as there were striae and criss-cross scratches in the form of a 90° arc where the radius was approximately 3 cm. The writer tried at once to throw an image of a window on the wall, but the fractured portions masked the lens effect. He then marked out the fractured portions by blackening with Chinese ink. focal length of the remaining portion of the lens proved to be 9.8 cm., and the image was quite distinct. The functioning portion of the fragment is shown by the light portion of Diagram B. The index of refraction by the travelling microscope method is 1.58+, so that it is made of a light flint glass. The fragment is too small to measure with the spherometer available, but the radii of the two surfaces are approximately 15 cm. and 5 cm. for the concave and the convex surfaces respectively. The lens was roughly handled for a considerable time before it was broken into two portions. After it was worked it had not been much dulled by use.

The diagrams are full size. Diagram A shows the convex side with the original polished lens surface in the center of the picture. This is pitted with twelve small pockmarks less than a millimeter deep. This was done by pecking and not by are light pitting. (Besides are pitting should be found, if found at all, on the concave side.) Diagram B shows the concave side of the lens. The right-hand side shows where a thin flake has been removed. The central portion and all that to the left and bottom is polished; but the shading shows the concoidal fracture of the under side of the lens. The 90° are of striae or scratches is not shown in the diagram but it extends from the lower left-hand corner to the top of Diagram B. The outer edge of the B surface is slightly convex for holding (?) the lens. This is the only lens of the sort—with a cupid's bow contour for the cross section of B surface (concave in center and convex on the edges.)—that the writer can find, and he has access

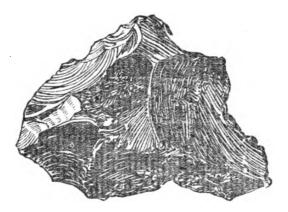


Diagram A

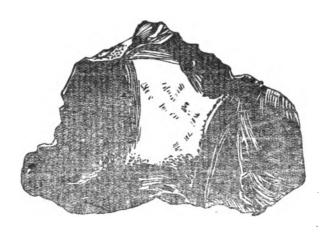


Diagram B

•

to more than a dozen that have been made in Europe and America during this century. This peculiarity may be a clue to the provenance of the lens. But from here on, let Mr. Edgar tell his own story-

"Tatsienlu, Sept. 17th, 1934,

.... Thank you for your letter. It agrees entirely with my idea of the "artifact". I also think it has been used. But as to the origin I am puzzled. In a work of elimination I would choose:

The region South East of Tibet where I saw the Pygmies in West of that region is the Arbor Country (folk) and other peoples of low culture. But I have not heard of "stone age" practices. However, note: About 1858 Krick and Boury were robbed and murdered in the vicinity. Then in 1911 Williamson's party of 111 men were attacked and murdered by the Arbors. To the East, on the Salwin, two Germans about 25 years ago were also murdered. Would such material be among their belongings? Savages might be puzzled about the glass and break it to find the cause of its strange behaviour. Once broken, it would by a little trimming, be of great value. Chinese soldiers operating say in Menkong and the Zavul might also consider it a curio and bring it back with them. Of course this is only a theory: the true explanation might be much simpler. But:

WRITE IT UP for Journal as a curio awaiting a solution. I have never imagined it a crystal, or the workmanship ancient. Of course, material travels to Tachienlu from distant places: -Coral from the Persian Gulf, lapis lazuli, turquoise, George IV rupees, and even coins from Goa. This may have come from any part of the civilized or uncivilized world to India and from India to T. T. L. as a charm or ornament. It was stolen by a beggar and may have been in the family as a talisman. But write it up. It is certainly not ancient but just as surely not accidental, nor done by a novice in the art which usually suggests Paleolithic man.

Quote as much of this as you wish in your article. "Signed J. H. Edgar."

P. S.-1. Do write up the glass "artifact". It may open up a new line of things. Dutch ships may have brought it from Africa. or New Guinea, etc. J. H. E.

P. S. -2. I would have associated it with tanners or those of similar trades; but the workmanship is too typical of a culture entirely foreign to Tachienlu or modern Szechwan. J. H. E.

# THE TIEN MA. WHAT IS IT?

#### A. P. QUENTIN

Some time ago an old acquaintance, Heo Huan-ting, dropped in with a parcel under his arm, which he soon informed me contained something unusually valuable. When he opened it, this is what I saw and measured.

A fresh untanned skin, of moderate thickness, the outer side of which was covered with an exquisit, snow-white down, suggestive of ostrich-down. Much of the down was 1½ English inches long, some a trifle longer. Close to the lower edge were three white feathers, two or three inches in length, ordinary white feathers such as could be plucked from any white Leghorn cockerel. With a carpenter's 5 foot rule, the skin measured just 5 Chinese feet (5 ft. 4 in., English) at the upper edge, and a little more than 2 Chinese feet from top to bottom. The lower edge was about 2½ feet long. An unusual feature was that the skin was about twice as wide at the top as at the bottom, giving the whole a bat-like appearance. The accompanying drawing approximates the general appearance. On the upper edge, in the middle, the skin extended 3 or 4 inches giving the suggestion of a collar. There was a slight fullness in the centre (see drawing).

The skin was all of one piece. From the under side one could see impressions in places where the plumage ends had almost come through. The skin was thinner than one would expect to find on a large animal.

WHAT HEO HUAN-TING TOLD ME.

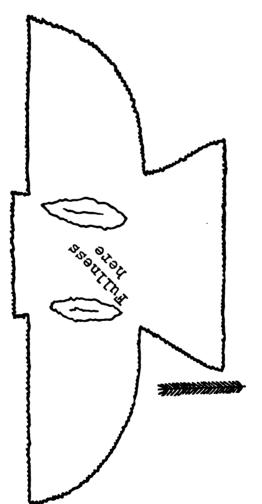
I have known Heo for 20 years. He is quite a wag. I have always found him to be resourceful, capable, and a good story teller! I give what he told me for its own interest, the tares with the wheat. He got the skin from a hunter at Han Yuan Ch'ang, 淡彩場 near Ts'ing Ki Hsien 清溪縣. The hunter had brought it a month's journey from the wilds to the West, and only consented to part with it when assured that whoever got it finally should regard it as of great rarity and of much value.

The Head, my informant told me, had been square, like that of a cat. The mouth had inch-long teeth.

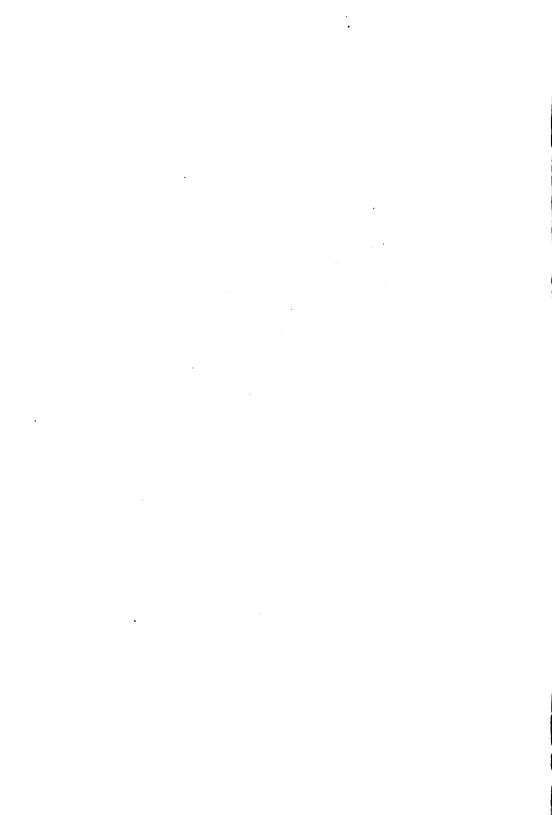
The feet, there were four, perhaps 1½ ft. long, the hoofs cloven and pointed like those of a ki-tse 廢子, or shan yeng 山羊.

The body, like a dog's, but larger.

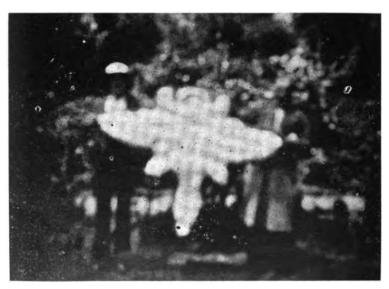
The tail, like that of a fox, about 24 inches long. "Why didn't you bring it?" "The Fan Wang 番玉 wanted it as a plume, appendage to his royal headgear, costing the king 王 six hundred Tibetan dollars. (Rupees).



Rough sketch of the tien ma skin. Length 5ft. 4in. Small figure shows the coarser down. The finer parts are softer and possess a longer fluff.







The skin of the T'ien Ma. What is it?

Wings. Since the wing spread was all of one piece with the body part of the skin, I asked how there could be wing movement. He replied "Not to fly upward, but probably to coast downward."

Habitat. He replied, "In the high mountains, at snow levels.

Food. Ch'ong Tsao 蟲 \$ "which can disappear in the earth, and has reh hsin 幾性," and pei mu 貝田, which is "white and

soft and round." (Frittilaria Thunbergii Mig.—Giles).

WHAT THE OLD BOOKS SAY.\* The Shan Hai Ching 山海經 says the Tien-ma is like a white dog, flying at the sight of man. Its "ruh-chi" 肉翅 is suggestive of lemur-like wings. It has a call.

The Tsi-yuan says that the fox of the steppes of the Gobi desert, a small white animal, has fur that is made into robes. The skin under the body is called t'ica-ma skin (fur); that under the neck is called cloudy leopard, both being very valuable. The value of this quotation is not that it proves the corsac to be the t'ien ma, but that Chinese furriers, hoping to get better price, call an inferior fur by a famous name. Again the fur is white as in the Shan Hai Ching, and the quotation gives further evidence that there is such a thing as the t'ien ma. But what is it?

A BABY TIEN MA. This I didn't see at all, but Heo says he wouldn't trust the big skin to the tanner until his art was tried on the small one. Finally the smaller skin was sacrificed to patch up the larger one, much of it going to make the goodly tail seen in

the picture.

Perhaps a Jack Young or a Roosevelt or some other famous hunter will clear up the mystery of this mother and its offspring.

THE PHOTOGRAPH. He asked such a fabulous price that I lost track of the t'ien ma skin for a while. When next heard of it was in the tanner's hands. I told Heo to bring it along for a photograph. So he laid plans for a fetching photo. He rounded the wings, added a tail, dark cat-like ears, and a mouth, and sewed the whole thing on a red satin base. However, we took the photograph, and submit it for what it is worth. The breadth and length are generally correct.

In the Manchu Dynasty certain officials appeared with "T'ien ma feng" 天馬鋒 a white fluffy border to their satin furlined coats, so an old teacher here tells me.

<sup>\*</sup>The following extracts from Chinese books were located for me by Mr. Den Kwang-lu of the West China Union University Library, and to him I am greatly indebted.

山海經云馬成之山有歐焉其狀如白犬而黑 頭見人則於---言肉翅飛行自在---其名曰天 馬其鳴自呼 群源 載 清 一 統 志 云 沙 狐 生 沙 碛 中 身 小 色 白 皮 集 為 裘 在 腹 下 者 名 天 馬 皮 頷 下 者 名 鳥 婁 豹皆貴重

# TAXONOMY, DISTRIBUTION AND ECONOMIC IMPORTANCE OF CHRYSOMELIDAE IN SZECHWAN.

I. Notes on Collecting Trips in South-Western Szechwan.

# 四川金花虫科甲虫分類分佈及經濟上之重要

一. 四川西南部採集誌

Ho Wen-chun\* (何 文 俊)

#### CONTENTS

- 1. Introduction
- 1. Localities visited for collection
- 3. Forms secured during these collecting trips
- 4. Acknowlgment
- 5. Summary

#### 1. Introduction

In order to lead to a clearer understanding of the species, distribution and economic importance of the Chrysomelid fauna of Szechwan, I have made several collecting trips to various localities in the south-western part of this province since June 1932. The species of Chrysomelid beetles collected are described in detail in the next paper. The purpose of this paper is to describe a number of things which have attracted my attention and may interest other zoological workers in China.

#### 2. Localities Visited for Collection

With Chengtu as the headquarters of my collecting ground, I went first to Tzechow, after a short period spent in collection in the vicinity of the Chengtu plain. On June 25th, I got to Tzechow, where I spent about one week in searching for Chrysomelid beetles, aquatic insects, molluscas and fishes. Owing to heavy rain in that region, the collection made there was rather poor. In early July, I returned to Chengtu for another short collection period on the

<sup>\*</sup>Research follow of the China Foundation for the Promotion of Education and Culture.

fairly well planted part of the plain. Then I took boat directly to Kiating and spent July 14-15 along the river bank near the city. On the July 16th, I left for Mt. Omci, and five days later reached the peak of the mountain. After two days stay, I returned to Kiating, making occasional collections on the way. Returning then to Chengtu, I made my third short-time collection on the plain. On August 20th, after a two-day journey from Chengtu, I arrived at Ku-Sze, a mountain 150 li west of Chengtu. During four days afield, I secured numerous specimens of insects as well as some amphibians and reptiles. This mountain is closely connected with Chinchen-Shan and fairly well covered with large trees or low bushes, a very favourable habitat for insects as well as land vertebrates. On the morning of August 25th, at daybreak, I left Ku-Sze for Chinchen and Kwanhsien where I worked 4 days on the mountainous places near that region. Then I returned to Chengtu on the 30th of August, and constantly collected outside the city throughout the remaining months. Owing to the unsettled condition here, the work has been often interrupted.

The localities where specimens were secured may be conveniently listed as follows:

Chengtu (成都)c	apital of Szechwan, a well
$\mathbf{c}$	ultivated plain between
ť	he Min (岷江) and Tou
	作 江)rivers.
Tzechow (費州)a	city on the Tou river, 380
1	i southeast of Chengtu.
Kiating (墓 定)a	city on the Min river, 350
<u> </u>	i south of Chengtu.
Mt. Omei (皒眉山)a	mountain in immediately
Tr.	est of Kiating.
Ku-Sze (古寺)a	mountain temple, im-
n	nediately south of Chin-
n C	hen-Shan and 150 li west
0	f Chengtu.
Kwanhsien (灌 縣)	city 100 li west of Cheng-
t	u, at the divergence of
N	lin and Tou rivers.
Chinchen Shan (青城山)a	mountain, 40 li south
W	vest of Kwanhsien.

#### 3. Forms Secured During these Collecting Trips

These collecting trips resulted in the accumulation of over 2000 specimens, consisting of approximately 120 vertebrates and over 1900 invertebrates, all of which are now in the Division of Natural History of the West China Union University Museum. They are being examined either by our museum staff or by other specialists in China and foreign countries. The following account

includes three groups, namely, the Chrysomelid beetles, the other invertebrates and the vertebrates.

(1) The Chrysomelid beetles—About 300 chrysomelid beetles wore secured, being classified roughly into 40 kinds. Among them, 31 kinds, have been sent to the Laboratoie d'Entomologie, Paris, France, for determination and the rest, known ones, belong to the following species:

(2) Other invertebrates—Within my collection were about 1000 specimens of insects other than the Chrysomelid beetles. After a hurried examination, they have been distributed among the following orders: Odonota, Orthoptera, Plecoptera, Hemiptera, Homoptera, Colcoptera, Neuroptera, Hymenoptera, Lipedoptera.

The remainder were 312 molluscs, 236 spiders, 50

crustaceans and 32 worms.

(3) Vertebrates—The vertebrates collected during those collecting trips were 76 fresh-water fishes, 52 amphibians and 12 reptiles. The names of the amphibians and reptiles are listed as following:

# A. Amphibians:

Batrachuperus Pinchonii David	t. Omei
Bufo bufo Asiaticus SteindechnerCl	iengtu
Hyla spK	u-Sze
Kaloula rugifera Stejneger	t. Omei
Rana nigromaculata HallowellT	zechow, Chengtu

# B. Reptiles:

Sphenomorphus indicus Gray	Ku-Sze
Gekko sulpalmatus Gunther	Chengtu
Japaleura splendida Barbour and Dunn	Wenchwan

#### 4. Acknowledgment

The writer wishes to acknowledge herewith his great indebtedness to the China Foundation for the Promotion of Education and Culture for the grant of a research fund which has made all these collecting trips possible. Special acknowledgment is also due to the Department of Biology, West China Union University, for permitting the writer to freely use equipment.

#### 5. SUMMARY

- This province attains vast areas which have not been explored and various groups of animals that have neither been collected nor thoroughly studied.
- 2. Because of the even weather, rain and planting all the year through, the form, particularly the Chrysomelid beetles, are quite abundant everywhere through the province.
- 3. The localities the writer visited are only slightely touched and many forms still remain unknown.
- 4. Therefore, a longer exploration is required in order to make comprehensive and thorough-going collections that will give us a more complete knowlege of fauna in this province.

# TAXONOMY, DISTRIBUTION AND ECONOMIC IMPORTANCE OF CHRYSOMELIDAE IN SZECHWAN

II. The Chrysomelidae of Szechwan.

# 四川金花虫科甲虫分類分佈及經濟上之重要 二. 四川金花虫科甲虫誌

Ho Wen-chun\* (何 文 俊)

#### CONTENTS

- 1. Introduction
- 2. GEOGRAPHICAL DISTRIBUTION
- 3. TAXONOMY
  - (1) Key to the Species.
    - A. Synopsis
    - B. Keys and Descriptions of Species.

Family Chrysomelidae Division Eupodes Subfamily Sagrinae Genus Sagra

- 1. petilii Lacord.
- 2. purpurea Licht.

Division Cyclica Subfamily Eumolpinae Tribe Eumolpini Genus Colasposoma

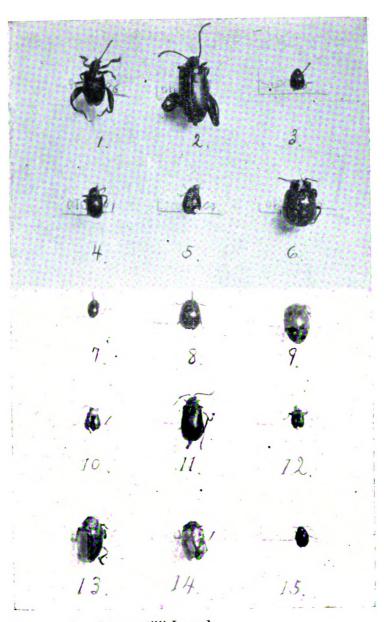
3. metallicum Clark.

Tribe Corynodini Genus Chrysochus

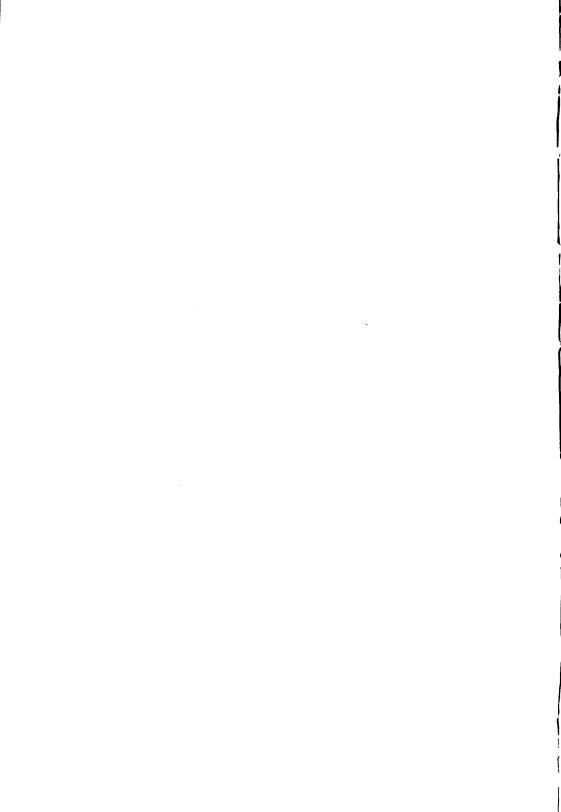
4. chinensis Baly

Subfamily Chrysomelinae Tribe Chrysomelini Genus Chrysomela

<sup>\*</sup>Research fellow of the China Foundation for the Promotion of Education and Culture.



- Sagra petilii Lacord. 1. Sagra purpurea Licht. 2.
- Colasposoma metallicum Clark. 3.
- Chrysochus chinensis Baly. 4.
- Chrysomela aurichalcea Mann. 5.
- Eumela cyanicollis Hope. 6.
- 7. Colaphellus Bowringi Baly.
- 8. Melasoma aeneipennis Baly. 9. Oides decimpunctata Billb.
- Rhaphidolpa chinensis Weise. 10. Agetocera deformicornis Laboiss. 11.
- Sepharia rubricata Fairm. 12.
- 13. Podontia lutea Oliv. Ophrida spectabilis Baly. 14.



5. aurichalcea Mann.

Genus Eumela

6. cyanicollis Hope

Tribe Phaedonini Genus Colaphellus

7. Bowringi Baly

Genus Melasoma

8. aeneipennis Baly

Division Trichostomes Subfamily Galerucinae Tribe Oidini Genus Oides

9. decimpunctata Billb.

Genus Rhaphidopalpa

10. chinensis Weise

Genus Agetocera

11. deformicornis Laboiss.

Tribe Monoleptini Genus Sepharia

12. rubricata Fairm.

Subfamily Ralticinae Genus Podontia

13. lutea Oliv.

Genus Ophrida

14. spectabilis Baly

Genus Phygasia

15. ornata Baly

#### · INTRODUCTION

Since the summer of 1932, the writer has made an extensive zoological collection\* from different parts of Szechwan. Five different trips were made, during which the Chrysomelid beetles were observed and collected. The last of these trips was made late

<sup>\*</sup>Ho Wen-chun, Taxonomy, Distribution and Economic Importance of Chrysomelidae in Szechwan. I. Notes on Collecting Trips in South-Western Szechwan, J. West China Bord. Res. Soc., 1933, VI.

in the Spring of 1933, by which time, there were about 300 specimens, which may be classified roughly into 40 kinds. The writer found that the identification of the specimens was very difficult, due to the lack of literature available. It was, therefore, necessary to send them abroad for identification. A series of subsequent papers will describe these collected specimens. The present paper concerns only 15 species from different localities of Szechwan and the writer wishes to express his indebtedness to Mr. S. H. Chen of the Laboratoie d'Entomologie, Paris, France, for naming most of them. The host plants of most of these beetles were actually recognized and observed by the writer in the field, but a few of these beetles were not found on plants, and therefore their hosts must be identified at a later time.

#### GEOGRAPHICAL DISTRIBUTION

1. Number of forms and specimens taken in each locality.

Specimens

Forms

Locality

	···········48	
Kwanhsien		4
Kiating	6	1
Mt. Omei		
Wentang (Chungking)	13	
Hwa-in-shan	1	
		-
2. Geographical Distr	ribution of the different forms	•
Forms	Distribution	Specimens
Sagra petilii	Distribution	3
	Kwanhsien	
	Hwa-in-shan	
Colasposoma metallicum.	·····Chengtu·····	
Chrysochus chinensis	Chengtu	
Chrysomela aurichalcea	Mt. Omei	2
	Mt. Omei	
•	Kwanhsien	
Colaphellus Bowringi	····· Chengtu····	
Melasoma aeneipennis	Mt. Omei	3
Oides decimpunctata	·····Chengtu·····	
•	Wentang	
Rhaphidopalpa chinensis.	······Chengtu	10
Agetocera deformicornis	Mt. Omei	9
Sepharia rubricata	Mt. Omei	9
Podontia lutea	Kiating	6
	Wantan	
Ophrida spectabilis	Kwanbeion	0
Phygasia ornata	Mt. Omei	
	······································	•••••

#### **TAXONOMY**

- 1. KEY TO THE SPECIES.
  - (1) Synopsis

Family Chrysomelidae Division Eupodes Subfamily Sagrinae Genus Sagra

- 1. petilii Lacord.
- 2. purpurea Licht.

Division Cyclica Subfamily Eumolpinae Tribe Eumolpini Genus Colasposoma

3. metallicum Clark

Tribe Corynodini Genus Chrysochus

4. chinensis Baly

Subfamily Chrysomelinae Tribe Chrysomelini Genus Chrysomela

5. aurichalcea Mann.

Genus Eumela

6. cyanicollis Hope

Tribe Phaedonini Genus Colaphellus

7. Bowringi Baly

Genus Melasoma

8. aeneipennis Baly

Division Trichostomes Subfamily Galerucinae Tribe Oidini Genus Oides

9. decimpunctata Billb.

Genus Rhaphidopalpa

10. chinensis Weise

Genus Agetocera

11. deformicornis Laboiss.

Tribe Monoleptini Genus Sepharia

12. rubricata Fairm.

Subfamily Halticinae Genus Podontia

13. lutea Oliv.

Genus Ophrida

14. spectabilis Baly

Genus Phygasia

15. ornata Baly

# (2) Keys and Descriptions of Species

#### Key to the Division

- A. Antennae widely separated at base; elytra of hard texture.
  - (A) Intermediate ventral segments not medially constricted; pygidium not exposed.

Division Eupodes Subfamily Sagrinae Genus Sagra

## Key to the species

#### SAGRA PETELII LACORD.

Mon. Phyt. I, 1845, p. 44. -Baly. Trans. Ent. Soc. Lond. (n. s.) V. 1860, p. 236, (3) LV, I, 1865, p. 7. Jac. Fauna Ind. Col. II, 1908, p. 8, f, 2. Loc., China.

Description—Body oblong, entirely metallic blue. Head finely and remotely punctured; a short median longitudinal impression between the two compound eyes; clypeus distinct, triangular; the areas above the compound eyes are strongly and confusedly punctured; antennae filiform, bluish black, punctate, apical joints elongate. Thorax subquadrate; anterior margin nearly straight, a little concave in the middle; posterior margin also nearly straight a little convex in the middle; sides slightly concave; antero-lateral angles prominent but blunt. Elytra oblong-ovate, deeply depressed below base and within shoulders behind basal margins, the latter raised into an acute ridge; finely and regularly punctured into longitudinal striae.

Male with the posterior femora strongly thickened at middle, not much extending beyond elytra, upper edge strongly convex, lower with two teeth apex, and a dense patch of yellow tomentose hairs; posterior tibia with a long tooth apex.

Length-13 mm. male.

Habitat—This beetle has a very wide distribution in Asia, ranging from Burma to Siam, China and Japan. The specimens the writer studied were collected from Kwanhsien, western Szechwan, (No. Chr. 76a, 76b, 76c) July 4, 1932, W. C. Ho.

#### SAGRA PURPUREA LICHT.

Cat. Mus. Hamburg 1795, p. 60, nr. 713, -Herbst. Kaf. VII, 1797, p. 265, t. 112, f. 5. -Weber, Obs. Ent. 1801, p. 61. -01. Ent. V, 1807, p. 498, t. 1. f 3 -Lap. Hist. Nat. Ins. Col, II, 1840, p. 506. -Baly. Ann. Soc. Ent. Fr. (6) IX, 1889, p. 485. Locality, China.

Description—Body oblong, bright metallic violaceous. Head finely punctured; the inter-antennal space divided by a longitudinal ridge which is continuous with a longitudinal impression bounded behind by a transverse impression; antennae stout, closely punctured, with six apical joints black, five proximal joints violaceous shining, terminal joints very elongate. Prothorax subquadrate scarceely longer than broad; sides concave, antero-lateral angles prominent but blunt, the disk irregularly impressed with scattered punctures. Elytra oblong-ovate, deeply depressed below base and within shoulders, behind basal margin, the latter raised into a distinct ridge: surface impunctate.

Three males, all with the posterior femora strongly thickened at middle, not much extending beyond elytra, upper edge strongly convex, lower with a large outer tooth near apex, a smaller one beyond it, and a small black tubercle near extreme apex; posterior tibia curved at the base.

Length-20-22 mm. male.

Habitat—Three specimens of this beetle were collected from Kwanhsien (No. 79a, 79b, 79c) Aug, 6, 1932., and one from Hwa-in-shan, 300 li north-west of Chungking (No. 79d) July 9, 1933, W. C. Ho. This beetle has also been collected from Canton and Soochow, Kiangsu.

#### DIVISION CYCLICA

Key to the Families.

- A. Last joint of tarsi deeply bilobed. . . . . . Eumolpinae
- B. Last joint of tarsi not bilobed, entire. . . . Chrysomelinnai

#### Subfamily EUMOLPINAE

Key to the Tribes.

- B. Anterior margin of thoracic episterna convex. . . Corynodini

#### Tribe EUMOLPINI

#### Genus Colasposoma

# Colasposoma metallicum Clark

Description—Body entirely metallic black, oval, convex. Head strongly and coarsely punctured; antennae black, pubescent, filiform, about two-thirds the length of the body. Prothorax strongly and coarsely punctured; more than twice as broad as long; sides rounded posteriorly and pointed in the front. Scutellum semicircular, strongly and coarsely punctured. Elytra oblong, convex; broader at the base than the prothorax; strongly rugose at the sides; two small tubercles near the lateral margins below shoulders.

Female larger in size, with its elytral tubercles more pointed

than male.

Length  $-5\frac{1}{2}$  mm. male;  $6\frac{1}{2}$  mm. female.

Habitat—This beetle was collected from vegetable gardens on the West China Union University campus (No. 5a, 5b, 5c, 5d, 5e, 5f) June 25, 1932, W. C. Ho. In the writer's old collection, specimens were also collected from Canton.

Economic importance—It was found abundantly on the leaves of the Morning-glory (Ipomoca purpureus Lam.), but so far as the writer knows it does not cause serious injury to the host.

#### Tribe Corynodini

#### Genus Chrysochus

#### Chrysochus chinensis Baly

Ann. Mag. Nat. Hist. (3) IV, 1859, p. 125. -Marshall. Journ. Proc. Linn. Soc. Zool. VIII, 1865, p. 48. -Baly, Trans. Ent. Soc. Lond. 1874, p. 165. -Weise, Naturg. Ins. Deutschl. VI. 1882, p. 298, nota. -Hayd. Berl. Ent. Zeit, XXIII, 1879, p. 362. -Kolbe, Archiv f. Naturg. LII, 1886, 1, p. 227. Loc., North China; Korea.

Description—Body entirely violeacous blue, oblong, strongly convex. Head strongly punctured; clypeus feebly separated at the sides, finely pubescent on the anterior margin; antennae stout, violaceous black, with the five apical joints thickened and flattened, extending beyond the thorax. Prothorax broader than long; with fine and coarse punctures mixing each other; sides convex anteriorly, anterior margin straight, posterior margin slightly convex. Scutellum semicircular, impunctate. Elytra oblong, convex, broader at the base than the prothorax; coarsely and regularly punctured into distinct longitudinal striae; tuberculated near the lateral margins below shoulders.

Length - 9 mm.

Habitat—Two specimens of this beetle were collected on West China Union University campus (No. 91a, 91b) Aug. 10, 1932, W. C. Ho.

# Subfamily Chrysomelinae

# Key to the Tribes.

- B. Epipleura of the elytra glabrous ......PHAEDONINI

#### Tribe Chrysomelini

# Key to the Genera.

- B. Anterior margin of metasternum bordered on each side by a deep sulcation but the apex itself being immarginate...... EUMELA

#### Genus Chrysomela

# Chrysomela aurichalcea Mann.

Mannerh. in Hummel, Essais IV, 1825, p. 39 -Gebl. Ledeb. Reise 11, 3, 1830, p. 212; Bull. Mosc. XXI, 1, 1848, p. 20. -Suffr. Linn. Ent. V, 1851, p. 188 -Fairm. Ann. Soc. Ent. Fr. (4) V, 1865, p. 67. -Heyd. Deutsche Ent. Zeitscher. XXIII, 1879, p. 363. -Ws. Ins. Deutschl. VI. 3, 1884, p. 418, nota. -Mars. Abeille XXIV, 1886, p. 56. -Ws. Arch. Naturg. LIII, 1887 p. 181, -Jac. Ann. Mus. Genova XXVII, 1889. p. 188.

# Loc., China; Korea.

Description—Body deep metallic violaceous, oval, convex. Head smooth; clypeus pubescent on the anterior margin; antennae slender, pubescent, filiform. Prothorax subquadrate, one and half as broad as long; with two longitudinal impressions on lateral sides and an ante-basal impression bounded behind; anterior margin nearly straight, posterior margin convex in the middle, sides round; surface irregularly and coarsely punctured. Elytra oval oblong, convex; regularly and coarsely punctured into distinct longitudinal striae; shoulders prominent.

# Length-81 mm.

Habitat—Two specimens of this beetle were collected from Ta-o-sze, Mt. Omei (No. 14a, 14b) July 14, 1932, W. C. Ho. Specimens in the writer's old collection were also collected from Wu-chang, Hupeh.

Economic importance—This beetle attacks the leaves of the wild Lactuca (Compositae), injuring it rather severely, but it has not been observed to attack other economic plants.

#### Genus Eumela

# Eumela cyanicollis Hope

Description—Body oval, strongly convex. Head violaceous blue, coarsely and sparsely punctured; a longitudinal median impression between two compound eyes; clypeus distinct, triangular, anterior margin pubescent; antennae filiform, pubescent, with the three apical joints slightly thickened and flattened. Prothorax subquadrate, violaceous blue, coarsely and sparsely punctured; one and half as broad as long; anterior margin straight, posterior margin convex, sides nearly straight, antero-lateral angles produced. Scutellum violaceous blue, smooth, rounded behind. Elytra oval oblong, fulvous, strongly convex; each with two indistinct longitudinal lines and many coarse punctures arranged into striae. Legs and the anterior part of the first

abdominal segment violaceous blue, the rest abdominal segments fulyous.

Length-12-14 mm.

Habitat—Five specimens of this beetle were collected: two from Ta o-sze, Mt. Omei (No. 17a, 17b), IVc. July 13, 1932, and three from Kwanhsien (No. 17c, 17d, 17e) Aug, 20, 1932, W. C. Ho.

Economic importance—This beetle was found on the leaves of bean plants. But the writer did not have sufficient time to observe whether it attacks the leaves of the bean plants or other plants.

#### Tribe Phaedonini

#### Key to the Genera

- A. Pronotum squarely truncate in front ...... Colaphellus
- B. Pronotum more or less indented in front ......Melasoma

#### Genus Colaphellus

Colaphellus Bowringi Baly

Ann. Mag. Nat. Hist. (3) XV, 1865, p. 35. Loc., N. China.

Description—Body entirely metallic black, oval, oblong, convex. Head coarsely, densely and irregularly punctured; a transverse impression behind the clypeus; antennae filiform, black, pubescent with the five apical joints thickened. Prothorax coarsely and strongly punctured; anterior margin straight, posterior margin convex, sides rounded; one and half as broad as long. Scutellum triangular, impunctate. Elytra oblong, convex, coarsely and strongly punctured; tuberculated near the lateral margins below the shoulders. Size of the female is distinctly larger than the male.

Length-5½ mm. male; 6 mm. female.

Habitat—Many of these beetles were collected from the vegetable gardens of the West China Union University campus and its vicinity (No. 50a, 50b,.............50u) Sept. 15, 1932, W.C. Ho. In the writer's old collection, specimens were also collected from Peiping, Hopeh, and Soochow, Kiangsu.

Economic importance—Both the adults and larvae attack the leaves of the turnip very severely. They feed first on the lower surface of the leaves and then later on practically all parts of the leaves except the petioles and veins. This beetle practically destroys all the turnip in this territory.

#### Genus Melasoma

# Melasoma aeneipennis Baly

Description—Body oval, convex. Head deep fulvous, finely punctured; a longitudinal median impression between the two compound eyes; clypeus triangular; antennae filiform, pubescent, with the five proximal joints fulvous and the six apical joints black, slightly thickened, scarcely extending to the base of the thorax. Prothorax deep fulvous, sparsely and irregularly punctured; anterior margin concave, posterior margin convex, sides rounded, antero-lateral angles produced. Scutellum semicircular, impunctate. Elytra metallic green, oblong, convex; finely and irregularly punctured; tuberculated near the lateral margins and below the shoulders. Legs and abdomen fulvous.

Length-9 mm.

Habitat—Three specimens of this beetle were collected from Mt. Omei (No. Chr. 22a, 22b, 22c) July, 17, 1932, W. C. Ho.

Economic importance—All of these three beetles were found on the leaves of young camphor trees. But the writer did not have an opportunity to observe whether they attack the leaves of camphor tree or of other trees.

# Division Trichostomes

#### Key to the Subfamilies.

- A. Posterior femora slender, not adapted for leaping......

  GALERUCINAE

# Subfamily GALERUCINAE

# Key to the Tribes

- A. Claws spreading.....OIDINI

#### Tribe OIDINI

# Key to the Genera

- A. Epipleura broad in front but become narrow suddenly and disappear before the middle of the elytra.
  - (A) Epipleura concave in front; tibiae inermis and canalliculate externally; antennae long and filiform; body oval or oboval, glabrous dorsally......OIDES

- (B) Epipleura flat in front; tibiae mucronate; body oblongelongate, frequently wider behind; dorsal surface glabrous; pronotum transversely sulcate.....Rhaphidopalpa

#### Genus Oides

Oides decimpunctata Billb.

Schenh. Syn. Ins. I. 2, 1808, p. 230, Anm. 6 (Adorium).
-Jac. Proc. Zool. Soc. Lond. 1883, p. 400. -Kolbe, Arch. f.
Nat. LII, 1886, p. 230.

Loc., China; Korea.

Description—Body rounded-ovate, golden yellow, strongly convex. Head nearly impunctate, a cross impression between the two compound eyes; clypeus confused with the front; frontal tubercles triangular, connected, producing anteriorly to between the bases of the antennae and limited from behind by a transverse impression between the two compound eyes; antennae filiform, pubescent, with the three apical joints black and the eight proximal joints yellow. Prothorax subquadrate, finely and sparsely punctured; twice as broad as long; anterior margin straight, posterior margin slightly convex, sides convex; antero-lateral angles much produced but blunt. Scutellum semicircular, impunctate. Elytra oval oblong, strongly convex; finely and densely punctured; each with five definitely arranged black spots; two in front, two in the middle and one behind.

The female has a distinct larger size than the male.

Length-12 mm. male; 13 mm. female.

Habitat—This beetle has a much wider distribution in China as indicated by the writer's old collections from Peiping and the coastal provinces down to Fukien. The present specimens were collected from Chungking: Wentang, 40 li south of Chungking. (No. 90k, 90l, 90m,) and Chengtu (No. Chr. 90a, 90b...90j) July 25, 1932, W. C. Ho.

Economic importance—Both the adults and the larvae of this beetle attack the leaves of wild Vitis (Vitaceae) very severely.

#### Genus Киаринорагра

Rhaphidopalpa chinensis Weise

I. C. p. 395.

Loc., Shanghai.

Description—Body oblong; head, prothorax, clytra, antennae and legs all yellow; mesosternum, metasternum and abdomen

black. Head glabrous, narrower than the prothorax; frontal tubercles prominent, oblique, separated from each other by a short longitudinal furrow and limited from behind by a transverse impression confined by the two compound eyes; clypeus confused with front; antennae filiform, pubescent. Prothorax subquadrate, broader than long; impunctate or confusedly punctured; anterior and posterior margins nearly straight, sides slightly convex anteriorly; with a transverse sulcation curved in the middle. Elytra oblong, impunctate; shoulders prominent.

Length-7 mm.

Habitat—Specimens of this beetle were collected from the vegetable gardens on the West China Union University campus (No. Chr. Ia, Ib, Ic,.....Ij). In the writer's old collection, they were also collected from Changchow, Foochow, Fukien.

Economic importance—This beetle is injurious to the leaves of the golden squash, but so far it has not been found in such abundance as to produce serious effects on the host.

#### Genus Agetocera

Agetocera deformicornis Laboiss.

Ann. Soc. Ent. Fr. 96, 1927, p. 96. Loc., Szechwan, Yunnan.

Description—Body oblong, convex, robust. Head impunctate, narrower than the prothorax; clypeus yellow, hairy, a median longitudinal ridge extending backward to the center of the interantennal space and the apex of the two frontal tubercles; frontal tubercles prominent, transverse, separated from each other by a transverse impression confined by the two compound eyes; front reddish yellow; antennae filiform, black, pubescent. Prothorax subquadrate, glabrous, broader than long; anterior and posterior margins straight, sides convex anteriorly. Scutellum yellow, semicircular. Elytra black, convex, finely and densely punctured; shoulders prominent. Prosternum, mesosternum, metasternum, abdomen, femora and the proximal half portion of tibiae of the legs all yellow; the rest portion of the tibiae and tarsi black.

Length-13 mm. female.

Habitat—Only two specimens of this beetle were collected from Lei yin-sze, Mt. Omei (No. Chr. 3Ca, 36b) July 21, 1932, W. C. Ho.

Economic importance—This beetle is injurious to the leaves of the corn plants. Owing to its rare occurrence, so far it has not been found to have serious effects upon the host.

#### Tribe MonoLEPTINI

#### Genus SEPHARIA

# Sepharia rubricata Fairm.

Ann. Soc. Ent. Fr. LVIII, 1889, p. 78.

Description—Body oblong. Head yellow, impunctate; clypeus hairy, confused with the front and marked with three pairs of unequal size impressions: two median ones at the antero-lateral margins, two small ones in the middle near the anterior margin, and two larger ones behind, beyond the antennae; frontal tubercles present, subtriangular, separated from each other by a short, indistinct longitudinal furrow, and limited from behind by a transverse impression between the two compound eyes; antennae pubescent, filiform, very slender, with the five proximal joints yellow and the following joints gradually become blackish yellow. Prothorax yellow, impunctate, subquadrate; anterior margin straight, sides straight, posterior margin slightly convex but a littler concave in the middle. Scutellum black, triangular. Elytra oblong, reddish yellow, very finely punctured, truncated behind; broader at the base than the prothorax; shoulders prominent. Mesosternum, metasternum and the anterior part of the abdominal segments black; legs and the posterior part of the abdominal segments yellow.

Length-7½ mm.

Habitat—Three specimens of this beetle were collected from Hsi-hsiang-chih, Mt. Omei (No. Chr. 28a, 28b, 28c) July 19, 1932, W. C. Ho.

# Subfamily HALTICINAE

Key to the Genera.

- A. Anterior coxal cavities closed behind.
- B. Anterior coxal cavities open behind......Phygasia

#### Genus Podontia

Podontia lutea Oliv.

Geminger and Harold, Cat. Coleopt. XII, 1876, p. 3522 Maulik, Fauna Brit, Ind. Col. Chrysom, 1926, p. 222, Loc., Chekiang, Kiangsi, Kweichow, Szechwan, Yunnan, Formosa, Burma, Tonkin.

Description—Body oblong, massive, convex, general color yellow. Head brownish yellow, confusedly and sparsely punctured; frontal tubercles small, above the base of the antennae, separated from each other by a broad longitudinal ridge; antennae filiform, pubescent, with the two proximal joints brownish yellow and the following joints opaque black. Prothorax subquadrate, brownish yellow, remotely and finely punctured; anterior margin concave, posterior margin convex in the middle, sides slightly convex anteriorly; with some deep impressions which may be distinguished as follows: two longitudinal impressions, one on each side and bounded behind by an indistinct ante-basal impression; an oval impression between each longitudinal impression and the lateral margin; antero-lateral angles much produced. Scutellum triangular, brownish yellow, margined with black. Elytra yellow, oblong, convex, pointed behind; with coarse and regular punctures arranged into nine complete longitudinal rows and one inner half row on each elytron; the margins of elytra are also regularly punctured. Prosternum, mesosternum, metasternum, abdomen and the femora of the legs all fulvous yellow; the tibiae and tarsi of the legs black.

Length- -14 mm.

Habitat- Sixteen specimens of this beetle were collected: six from Wu yu sze, Kiating (No Chr. 35a, 35b, 35c) July 11, 1932, and ten from Wentang, 40 li south of Chungking (No. Chr. 35d, 35e, 35f.....35j), June 20, 1933, W. C. Ho.

Economic importance—This beetle was found to attack rather severely the leaves of the varnish-tree (Rhus varnicifera stokes).

Genus Ophrida

Ophrida spectabilis Baly

Gen. Col. XI, 1875, p. 31.

Loc., Chekiang, Weichow, Yunnan.

Description-Body oblong, convex, general color brownish yellow. Head remotely and coarsely punctured; frontal tubercles indistinct; antennae fitiform, pubescent, with four proximal joints brownish yellow and the following joints black. Prothorax subquadrate, broader than long, remotely and coarsely punctured; anterior margin concave, posterior margin slightly convex in the middle, sides convex anteriorly; with three pairs of oval impressions: two on each side near the lateral margin, and one right inside of each two impressions. Scutellum impunctate, triangular. Elytra oblong, convex, brownish yellow mixed with many irregular, whitish yellow marks; with coarse and regular punctures arranged into nine complete longitudinal rows and one inner half row on each elytron; the outer margins of the elytra are also regularly punctured.

Length-124 mm.

Habitat—Three specimens of this beetle were collected from Kwanhsien (No. Chr. 21a, 21b, 21c) July 5, 1932, W. C. Ho.

Specimens in the writer's old collection were also collected from Soochow, Kiangsu.

# Genus Phygasia

# Phygasia ornata Baly

Trans. Ent. Soc. Lond. 1876, p. 445.

Maulik, Fauna Brit. Ind. Coleopt. Chrysom., 1926, p. 418.

Loc., Hongkong.

Description—Body oblong-ovate, convex. Head reddish yellow, impunctate; frontal tubercles producing anteriorly to between the bases of the antennae, separated from each other by an indistinct longitudinal suture; and limited from behind by a transverse impression confined by the two compound eyes; antennae robust, densely pubescent, more than the half length of the body, first joint reddish yellow, second and the last joints blackish yellow, the remaining joints black. Prothorax reddish yellow, impunctate; anterior and posterior margins nearly straight, sides rounded; antero-lateral angles produced; with an ante-basal transverse impression bounded on each side by a short, longitudinal impression. Scutellum reddish yellow, impunctate. Elytra black, convex, very finely and incospicuously punctured, with a subquadrate yellowish area in the middle of each elytron. Prosternum, mesosternum, metasternum, abdomen and the femora of the legs yellow; the tibiae and tarsi of the legs black.

Length  $-6\frac{1}{2}$  mm.

Habitat—Three specimens of this beetle were collected from Ta-o-sze, Mt. Omei (No. Chr. 61a, 61b, 61c) July 14, 1932 and one from Lu-shan, Kiangsi in the writer's old collection.

# A PRELIMINARY LIST OF BUTTERFLIES OF SZECHWAN 四 川 蝉 類 名 錄

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The Museum of Natural History West China Union University

#### CONTENTS

- 1. Introduction.
- 2. Abbreviations used for names of localities.
- 3. The list of butterflies.

#### 1. Introduction

The compilers of this list have made use of the splendid collection of butterflies collected by Rev. G. M. Franck during the past twenty years in various localities of Szechwan. The collection contains 1430 butterflies which distribute into eight families, eighty four genera and two hundred and twenty nine species. It has been a pleasure to make this study.

In addition to this, the senior compiler has also secured during past two years about 670 butterflies from different parts of this province while searching for Chrysomelid beetles<sup>2</sup>. They have also had available for study a part of the valuable collection of butterflies made by Dr. D. C. Graham during the last fifteen years in south-western part of this province. This collection was presented to the Museum of Natural History of West China Union University by the Smithsonian Institution (otherwise known as United States National Museum) Washington, D.C., U.S.A.

These three collections have furnished the material from which this list has been compiled.

<sup>&</sup>lt;sup>1</sup> Research fellow of the China Foundation for the Promotion of Education and Culture.

<sup>&</sup>lt;sup>2</sup> The senior compiler wishes to acknowlede herewith his great indebtedness to the China Foundation for the Promotion of Education and Culture for the grant of a research fund. Through the use of this fund it has been possible for him to make these collections.

For the systematic arrangement of the specimens in the list. Dr. A. Seitz, system in his classical work, The Macrolepidoptera of the World, has been adopted. Owing to the lack of literature available there are about twenty four species still to be identified. These and some new specimens from later collections by the senior compiler will be reported in a supplementary list at a later date.

# 2. Abbreviations used for names of localities.

CChengtu	ChChungking
K Kwanhsien	MMoupin
Mo Mochow	OOmei
PPenshan	Pe Penghsien
SSuifu	Su Sungpan
SzeSzechwan	TTatsienlu
WWenchwan	Wa Washan
Y Yachow	

#### The list of butterflies. 3.

#### SUPERFAMILY RHOPALOCERA

#### FAMILY PAPILIONIDAE

Genus Papilio Linnaeus

1. Popilio acacus Feld.

Wien. Ent. Mon. IV, p. 225.

Synonym: Ornithoptera rhadamanthus Boisd. Localities: Omei, Tatsienlu.

Date: July (O).

2. Papilio lama Oberth.

Et. d'Ent. II, p. 15. Locality: Omei.

Date: July, August.

3. Papilio elwesi Leech

> Trans. Ent. Soc. Lond. p. 113. Locality: Tatsienlu.

Papilio protenor Cram.

Pap. Exot. 1, p. 77.

Synonyms: Papilio memnon Fabr. (male); Papilio Lao-

medon Fabr. (female). Localities: Kwanhsien, Omei.

Date: July (K), July, August (O).

5. Papilio rhetenor Westw.

Arcan. 1, p. 59.

Synonyms: Papilio alemenor Feld. Papilio icarius Westw. (female).

Localities: Kwanhsien, Omei.

6. Papilio bianor Cram.

Pap. Exot. 11, p. 10.

Localities: Chengtu, Omei, Washan (near Omei).

Date: June (C), July (O; Wa).

7. Papilio chinensis Rothsch.

Nov. Zool. 11, p. 385.

Synonym: Papilio paris Leech.

Localities: Kwanhsien, Moupin. Date: July, August, October (K).

8. Papilio arcturus Westw.

Ann. Mag. Nat. Hist. IX, p. 37.

Localities: Suifu, Washan.

9. Papilio borealis Feld.

Wien. Ent. Mon. VI, p. 22.

Localities: Chengtu, Washan, Moupin.

Date: April, July, September (C), July (Wa).

10. Papilio xuthus L.

Syst. Nat. Ed. XII, p. 751.

Synonym: Papilio xanthus L.

Localities: Kwanhsien, Omei. Mochow.

Date: July, August (K), August (O).

11. Papilio machaon L.

Faun. Suec. Ed. 11, p. 267.

Localities: Chengtu, Kwanhsien.

Date: June, July (C), July August (K).

12. Papilio mandarinus Oberth.

Et. d'Ent. IV. p. 115.

Localities: Omei, Tatsienlu.

Date; July (O).

13. Papilio clymenus Leech

Butt. China, p. 523.

Locality: Kwanhsien.

Date: July, August.

14. Papilio sarpedon L.

Syst. Nat. Ed. X, p. 461.

Localities: Kwanhsien, Omei.

Date: July, August, September (K), July (O).

15. Papilio semifasciatus Honr.

Entom. Nachr. 1888, p. 161.

Locality: Suifu.

16. Papilio hercules Blanch.

Compt. rend. 1871, p. 809. Localities: Kwanhsien, Omei.

Date: July, August (K), July (O).

17. Papilio memnon L.

Localities: Chengtu, Kwanhsien, Suifu, Omei.

Date: August (K;S), September (C).

18. Papilio cuprotenor.

Localities: Suifu, Omei.

Date: July (S).

19. Papilio asiatica Menetr.

Enum. Corp. Mus. Petr. 1, p. 70.

Locality: Omei.

Date: July, September.

20. Papilio hiera Jord.

Locality: Szechwan.

21. Papilio xuthalus Brem.

Bull. Ac. Petr. 111, p. 463.

Lccality: Szechwan.

22. Papilio mencius Field.

Wien. Ent. Mon. VI, p. 22.

Locality: Szechwan.

#### Genus Armandia Blanch.

23. Armandia thaidina Blanch.

Compt. rend. Acad. Sc. Paris, 1871; p. 809.

Localities: Kwanhsien, Tatsienlu.

Date: August (K).

#### Genus Parnassius Latr.

24. Parnassius poeta Oberth.

Et. d'Ent. XVI, p. 2. Locality: Tatsienlu.

25. Parnassius huwei Fruhst.

Stett. Zg. LXIV, p. 360. Localities: Omei, Sungpan. Date: August (0).

26. Parnassius szechenyi Friy.

Term. Fuz. X. p. 39. Locality: Kwanhsien.

27. Parnassius orleans Oberth.

Descr. nouv. Lep. (Rennes) 1890. Locality: Mochow.

Date: July.

28. Parnassius imperator Oberth.

Bull. Soc. France, 1883, p. 77. Locality: Tatsienlu.

# FAMILY PIERIDAE

Genus Aporia Hbn.

29. Aporia hippia Brem.

Bull. Ac. Imp. Pet. III, 4, 464, Synonym: Aporia crataegioides Luc. Localities: Tatsienlu, Sungpan. Date: July.

# Genus Metaporia Btlr.

30. Metaporia largeteaui Oberth.

Et. d'Ent. VI, p. 12. Locality: Kwanhsien. Date: July, September.

31. Metaporia oberthuri Leech.

Entomol. XXIII, p. 46. Locality: Omei.

32. Metaporia lotis Leech.

Entomol. XXIII, p 192. Locality: Omei.

33. Metaporia melania Oberth.

Locality: Tatsienlu. Date: July.

34. Metaporia larraldei Oberth.

Et. d'Ent. 11, p. 19. Locality: Suifu.

#### Genus Delias Hbn.

35. Delias belladonna F.Ent. Syst. III, p. 180.Locality: Kwanhsien.Date: July, August.

36. Delias zelima Mitis.

Locality: Omei.

#### Genus Pieris Schrk.

37. Pieris brassicae L.

Faun. Suec. p. 269. Locality: Chengtu. Date: March, May.

38. Pieris deota Nicev.

Journ. As. Soc. Beng. 1883, p. 82. Synonym: Pieris roborowskii Alph. Localities: Chengtu, Kwanhsien. Date: May (C), July (K).

39. Pieris melaina Rob.

Seitz. Macrolep. 1906, I, p. 48. Localities: Chengtu, Kwanhsien, Tatsienlu. Date: May (C), July, August (K).

40. Pieris extensa Pouj.

Bull. Soc. Ent. Fr. 1888, p. 19. Localities: Kwanhsien, Suifu, Omei. Date: August (O; K).

Pieris melete Men.
 Cat. Mus. Petr. Lep. 11, p. 72.

Localities: Kwanhsien, Yachow. Date: August (K).

**4**2. Pieris orientalis Oberth.

Et. d'Ent, V, p. 13.

Synonym: Pieris mandschurica Spr. Locality: Tatsienlu.

Date: July.

43. Pieris canidia Sparrm.

Amoen. Acad. VII, p. 504.

Synonym: Pieris gliciria Cr.

Localities: Omei, Sungpan.

Date: July (O).

Pieris daplidice praeclara. 44.

Locality: Szechwan.

Date: August.

Genus Synchloe Hbn.

45. Synchloe dubernardi Oberth.

Et. d' Ent. IX. 13.

Locality: Sungpan.

Genus Anthocharis B.

46. Anthocharis cardamines L.

Fauna Suec. p. 271.

Locality: Suifu.

Genus Midea H.-Sch.

Midea scolymus Btlr. 47.

Journ, Linn. Soc. Lond. (Zool.) IX, p. 52.

Localities: Chengtu, Kwanhsien, Suifu.

Date: March (C), April (S).

Genus Terias Swains.

48. Terias hecabe L.

Mus, Ulr., p. 249.

Synonyms: Terias sinensis Luc.; Terias anemone Fldr.;

Terias hecabeoides Men.; Terias aesiope Men.; Terias

multiformis Pryer.

Localities: Kwanhsien, Suifu, Omei. June, July, August (K), September October (S; O).

49. Terias mandarina Orza.

Locality: Szechwan.

Date: August, September.

# Genus Gonepteryx Leech

50. Gonepteryx alvinda Blanch

Compt. rend. 1871, p. 810.

Localities: Tatsienlu, Sungpan.

51. Gonepteryx amintha Blanch.

> Compt. rend. 1871, p. 810. Localities: Chengtu, Omei.

Date: March, April, May, June, August (C), July, August (0).

**52.** Gonepteryx acuminata Fldr.

Wien. Ent. Mon. VI, p. 23.

Locality: Wenchwan.

Date: August.

#### Genus Dercas Boisd.

53. Dercas enara Swinh.

Ann. Mag. N. H. (7) III, p. 107.

Synonym: Dercas olens Stgr.

Localities: Kwanhsien, Suifu.

Date: July (K).

#### Genus Colias F.

54. Colias poliographus Motsch.

Et. d'Ent. IX, p. 29.

Synonym: Colias simoda Orza. Localities: Chengtu, Kwanhsien.

Date: May, June (C), June, July, August (K).

Colias fieldii Men. **55.** 

Cat. Mus. Petr. Lep. 1, p. 79.

Locality: Sungpan.

#### Genus Leptidia Billb.

56. Leptidia sinapis L.

Fauua Suec. p. 271.

Synonym: Leptidia sartha Ruhl.

Locality: Szechwan.

#### FAMILY DANAIDAE

Genus Danais Latr.

57. Danais septentrionis Btlr.

Entom. Monthl. Mag. 1874, p. 163.

# 170 JOURNAL W. C. BORDER RESEARCH SOCIETY

Localities: Omei, Tatsienlu. Date: July (O).

58. Danais melaneus Cr.
Pap. Exot. 1, p. 48.
Synonym: Danais ephyra Hbn.
Locality: Kwanhsien.
Date: August.

59. Danais tytia Gray
Lep. Ins. Nepal., p. 9.
Synonym: Danais sita Koll.
Locality: Kwanhsien.
Date: September.

# Genus Euploed F.

60. Euploea midamus L.

Mus. Ulr., p. 251. Synonym: Euploea linnaei Moore. Locality: Omei.

#### FAMILY SATYRIDAE

#### Genus Mandarinia Leech

61. Mandarinia regalis Leech

Trans. Ent. Soc. Lond. 1889, p. 102. Locality: Omei. Date: July, August.

# Genus Mycalesis Hbn.

62. Mycalesis mineus L.

Locality: Kwanhsien. Date: July.

63. Mycalesis sangaica Btlr.

Ann. Mag. Nat. Hist. (4) XIX, p. 95. Locality: Kwanhsien. Date: July.

64. Mycalesis perdiceas Hew.

Exot. Butt. III.
Synonym: Mycalesis penicillata Pouj.
Locality: Kwanhsien.
Date: July, August.

#### Genus Lethe Hbn.

#### 65. Lethe coelestis Leech

Butt. China 1, p. 20. Localities: Kwanhsien, Omei. Date: July, August (K; O).

66. Lethe verma Koll.

Hugels Kaschmir 4, p. 447. Locality: Omei. Date: July.

67. Lethe baucis Leech

Entomologist 24, Suppl. p. 3. Locality: Kwanhsien. Date: July, August.

68. Lethe dyrta Fldr.

Novara Lep. p. 497. Locality: Szechwan.

69. Lethe camilla Leech

Entomologist 24, Suppl. p. 8. Locality: Omei. Date: July, August.

70. Lethe marginalis Motsch.

Et. d'Ent. 9, p. 29.
Synonym: Lethe maakii Brem.
Locality: Kwanhsien.
Date: July.

71. Lethe manzorum Pouj.

Bul. Soc. Ent. Fr. 1884, p. CXXXIX. Locality: Kwanheien.
Date: July.

72. Lethe syrcis Hew.

Exot. Butt. IV.
Localities: Chungking, Omei.
Date: May (Ch), July (O).

73. Lethe gemina Leech

Entomologist 24, Suppl. p. 24. Locality: Omei. Date: July.

74. Lethe calipteris Btlr.

Ann. Mag. Nat. Hist. (4) XIX, p. 29. Locality: Omei. Date: July.

75. Lethe ocellata Pouj.

Bull, Soc. Ent. Fr. 1885, p. X. Synonym: Lethe simulans Leech Locality: Kwanhsien. Date: July.

76. Lethe lanaris Btlr.

Ann. Mag. Nat. Hist. (4) XIX, p. 95. Synonym: Lethe davidianus Pouj. Locality: Kwanhsien. Date: August.

77. Lethe rohria F.

Mant. 11, p. 45. Synonym: Lethe confusa Aur. Localities: Kwanhsien, Omei. Date: July (O), August (K).

78. Lethe schrenckii Men.

Schrencks Reis. p. 33. Locality: Kwanhsien. Date: July, August.

79. Lethe davidi Oberth.

Et. d'Ent. 6, p. 15. Locality: Omei. Date: July, August.

80. Lethe satyrina Btlr.

Trans. Ent. Soc. Lond. 1871, p. 402. Synonyms: Lethe naias Leech; Lethe styppax Oberth. Locality: Kwanhsien. Date: June, July, August.

81. Lethe christophi Leech-

Entomologist 24, Suppl. p. 67. Localities: Kwanhsien, Omei. Date: July (K), August (O).

82. Lethe privigna Leech Butt. China 1, p. 32.

Locality: Omei. Date: July.

83. Lethe labyrinthea Leech

Entomologist 23, p. 28. Locality: Omei. Date: August.

# Genus Zophoessa Doubl.

84. Zophoessa moupinensis Pouj.

Bull. Ent. Soc. Fr. 1884, p. CXL Locality: Kwanhsien. Date: August.

85. Zophoessa albolineata Pouj.

Ann. Soc. Ent. Fr. 1884, p. CLV. Synonym: Zophoessa andersoni Pouj. Locality: Omei. Date: July.

86. Zophoessa jalaurida Nicev.

Journ. Asiat. Soc. Beng. 49, p. 245. Locality: Tatsienlu.

87. Zophoessa progne Leech
Entomologist 24, Suppl. 2.
Locality: Omei.
Date: July, August.

# Genus Rhaphicera Btlr.

88. Rhaphicera dumicola Oberth.
Et. d'Ent. 2, p. 29.
Locality: Kwanhsien.
Date: August.

89. Rhaphicera satricus Doubl.

Gen. Lep. p. 387. Locality: Szechwan.

#### Genus Melanitis F.

90. Melanitis ismene Cr.

Pap. Exot. 1. Localities: Chengtu, Kwanhsien, Omei. Date: August (K, O); October (C). 91. Melanitis tristis Fldr.

Novara Lep. p. 464.

Localities: Kwanhsien, Omei.

Date: July (K, O); August (O).

Genus Neorina Wests.

92. Neorina patria Leech

Entomologist 24, Suppl. p. 25.

Localities: Kwanhsien, Omei.

Date: August.

Genus Neope Btlr.

93. Neope serica Leech

Butt. China 1, p. 49.

Locality: Kwanhsien.

Date: July.

94. Neope muirheadii Fldr.

Wien. Ent. Mon. 6, p. 28.

Locality: Kwanhsien.

Date: July, August.

95. Neope segonacia Oberth.

Et. d'Ent. 6, p. 14.

Localities: Kwanhsien, Omei.

Date: May (K); July (O).

96. Neope pulaha Moore

Cat. Lep. E. I. C. I. p. 227.

Locality: Omei.

Date: August.

97. Neope armandii Oberth.

Et. d'Ent. 2, p. 26.

Locality: Szechwan.

98. Neope goschkevitschii Men.

Cat. Mus. Petr. 11, p. 121.

Synonyms: Neope gaschkevitschii Fldr.; Neope niphonica

Bilr.

Locality: Kwanhsien.

Date: July.

# Genus Ypthima Hbn.

99. Ypthima asterope Klug.

Symb. Phys. tab. 29.

Synonyms: Ypthima mahratta Moore; Ypthima alemola Swinh.; Ypthima comolexina Swinh.

Locality: Kwanhsien.

Date: July.

100. Ypthima perfecta Leech

Butt. China 1, p. 88.

Locality: Kwanhsien.

Date: July.

101. Ypthima medusa Leech

Butt. China 1, p. 84.

Locality: Kwanhsien.

Date: July, August.

102. Ypthima praenubila Leech

Entomologist 24, Suppl. p. 66.

Locality: Kwanhsien.

Date: July.

#### Genus Callerebia Btlr.

103. Callerebia orixa Moore

Proc. Zool. Soc. Lond. 1872, p. 555.

Locality: Kwanhsien.

Date: July.

104. Callerebia albipuncta Leech

Entomologist 23, p. 31.

Locality: Kwanhsien.

Date: July

105. Callerebia pratorum Oberth.

Et. d'Ent. 11, p. 25.

Locality: Omei.

Date: July.

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#### Genus Erebia Dalm.

106. Erebia rurigena Leech

Entomologist 23, p. 187.

Locality: Omei.

Date: July.

#### 176 JOURNAL W. C. BORDER RESEARCH SOCIETY

# Genus Melanargia Meig.

107. Melanargia halimede Men.

Bull. de l'Acad. Pet. 17, p. 216. Locality: Tatsienlu.

108. Melanargia montana Leech

Entomologist 23, p. 26. Locality: Kwanhsien. Date: July.

# Genus Satyrus Latr.

109. Satyrus iole Leech

Butt. China 1, p. 75. Locality: Sungpan.

110. Satyrus sybillina Oberth.

Et. d'Ent. 13, p. 40. Locality: Sungpan.

111. Satyrus loha Doh.

Journ. Asiat. Soc. Beng. 1886, p. 118. Locality: Szechwan.

#### Genus Callarge Leech

112. Callarge sagitta Leech

Entomologist 23, p. 26. Locality: Szechwan.

#### Genus Pararge Hbn

113. Pararge thibetana Oberth.

Et. d'Ent. 2, p. 28. Locality: Szechwan.

114. Pararge praeusta Leech

Entomologist 23, p. 188. Locality: Omei. Date: July, August.

115. Pararge majuscula Leech

Butt. China 1, p. 67. Locality: Sungpan. 116. Pararge fulvescens Alph.

Rom. Mem. Lep. V, p. 118. Locality: Sungpan.

Genus Aphantopus Wallgr.

117. Aphantopus arvensis Oberth.

Et. d'Ent 2, p. 30. Locality: Omei.

Date: July.

118. Aphantopus hyperantus L.

Syst. Nat. (X) p. 471.

Synonym: Aphantopus polymeda Hbn. Locality: Sungpan.

119. Aphantopus arctica Seitz

Macrol 1, Vol. 1, p. 137. Locality: Tatsienlu.

Genus Coenonympha Hbn.

120. Coenonympha sinica Alph.

Stett. Zg. 1888, p. 66.

Synonym: Coenonympha tydeus Leech Localities: Tatsienlu, Sungpan,

# FAMILY MORPHIDAE SUBFAMILY AMATHUSIINAE

Genus Stichophthalma Fldr.

121. Stichophthalma suffusa Leech

Butt. China 1, p. 114.

Synonym: Stichophthalma tonkiniana Fruhst.

Localities: Kwanhsien, Omei.

Date: July.

122. Stichophthalma neumogeni Leech

Butt. China 1, p. 114. Locality: Kwanhsien. Date: July.

Genus Faunis Hbn.

123. Faunis aerope Leech

Entomologist 23, p. 31.

Localities: Chungking, Kwanhsien, Omei.

Date: July (K; C), August (O).

#### SUBFAMILY DISCOPHORINAE

Genus Enispe West.

124. Enispe lunatus Leech

Entomologist 24, Suppl. 26.

Locality: Omei.

Date: July, August.

125. Enispe enervata Stich.

Gen. Insector. Fasc. 31, p. 12.

Localities: Chengtu, Omei.

Date: July, August (O)

# FAMILY NYMPHALIDAE SUBFAMILY NYMPHALINAE GROUP APATURIDI

Genus Apatura F.

126. Apatura iris L.

Syst. Nat. X, p. 478.

Localities: Kwanhsien, Moupin.

Date: July. (K)

127. Apatura ilia Schiff.

Wien, Verz. p. 172.

Synonym: Papilio iris Esp.

Locality: Kwanhsien.

Date: July.

128.Apatura subcaerulea Leech

Entomologist 24, Suppl. p. 9.

Locality. Omei.

129. Apatura fasciola Leech

Entomologist 23, p. 33,

Locality: Kwanhsien.

Date: July.

130. Apatura fulya Leech

Entomologist 24, Suppl. p. 30.

Locality: Omei.

Date: July.

131. Apatura subalba Pouj.

Bull. Soc. Ent. Fr. 1885, p. CCVII.

Locality: Kwanhsien.

Date: July.

132. Apatura scrarum Oberth.

Et. d'Ent. 15, p. 11.

Synonym: Apatura phaedra Leech (male).

Locality: Omei.

# Genus Sephisa Moore

133. Sephisa princeps Fixsen
Rom. Mem. Lep. 3, p. 289.

Synonym: Sephisa cauta Leech Localities: Kwanhsien, Omei.

Date: July (K; O), August, (K).

134. Sephisa albimacula Leech

Entomologist 23, p. 190.

Locality: Omei. Date: August.

#### Genus Sasakia Moore

135. Sasakia funebris Leech

Entomologist 23, p. Suppl, 27.

Localities: Kwanhsien, Omei.

Date: July.

136. Sasakia charonda Hew.

Exot. Butt. 3.

Localities: Kwanhsien, Omei.

Date: July.

# Genus Diagora Snell.

137. Diagora chinensis Leech.

Entomologist 23, p. 32.

Locality: Chengtu.

Date: October.

138. Diagora viridis Leech

Entomologist 23, p. 32.

Locality: Szechwan.

Date: July.

139. Diagora nigrivena Leech.

Entomologist 23, p. 31.

Locality: Omei.

Genus Helcyra Fldr.

140. Helcyra superba Leech.

Entomologist 23, p. 289.

Locality: Kwanhsien.

Date: August.

#### GROUP CHARAXIDI

Genus Eriboea Hbn.

141. Eriboea mandarinus Fldr.

Novara Lep. p. 437.

Locality: Kwanhsien, Penghsien.

Date: July.

142. Eriboea thibetana Oberth.

Et. d' Ent. 15, p. 11.

Locality: Chengtu.

Date: April.

143. Eriboca narcaca Hew.

Ex. Butt. 1.

Locality: Szechwan.

Genus Charaxes O.

144. Charaxes polyxena Cr.

Pap. Ex. 1, p. 85.

Synonym: Charaxes bernardus F.

Localities: Chengtu, Kwanhsien.

Date: May (C), August (K).

# SUBFAMILY LIMENITINAE

GROUP CYRESTIDI

Genus Cyrestis Bsd.

145. Cyrestis thyodamas Bsd.

Cuv. Regn. Anim. Ins. 2.

Synonym: Amathusia Ganescha Koll.

Localities: Omei.

Date: July, August.

# Genus Pseudergolis Fldr.

146. Pseudergolis wedah Koll.

Hug. Kaschm. 4, (2), p. 437. Synonym: Precis hara Moore. Localities: Kwanhsien, Omei. Date: August.

#### GROUP LIMENITIDI

#### Genus Neptis F.

147. Neptis pryeri Btlr.

Trans. Ent. Soc. Lond. 1871, p. 403. Synonym: Neptis arboretorum Oberth. Locality: Kwanhsien. Date: June, July.

148. Neptis dejeani Oberth.

Et. d'Ent. 19, p. 15. Locality: Kwanhsien. Date: July.

149. Neptis philyra Men.

Bull. Ac. Pet. 17, p. 214. Locality: Kwanhsien. Date: July.

150. Neptis philyroides Stgr.

Rom. Mem. Lep. 3, p. 146. Localities: Kwanhsien, Omei. Date: July (K; O), August (O).

151. Neptis hylas L.

Syst. Nat. X, p. 486.

Synonyms: Neptis leucothoe L.; Leptis ex parte, acidalia Web.; Neptis eurynome Westw.

Localities: Kwanhsien, Omei.

Date: July.

152. Neptis antonia Oberth.

Et. d'Ent. 2, p. 22.

Synonyms: Neptis amba Leech; Neptis nec Moore. Locality: Omei.

- 153. Neptis ananta Moore.
  - Cat. Lep. E.I.C.I. p. 166. Locality: Omei.

Date: August.

- 154. Neptis chinensis Leech.
  - Butt. China, p. 198. Locality: Szechwan.
- 155. Neptis thestias Leech.

  Butt. China, p. 196.
- Locality: Omei.
- 156. Neptis antilope Leech. Entomologist 23, p. 35.
  - Locality: Kwanhsien. Date: July. August.
- 157. Neptis acidalia Web.
  - Localities: Chengtu, Kwanhsien. Date: August (K), October (C).
- 158. Neptis cydippe Leech.
  - Entomologist 23, p. 36. Locality: Kwanhsien. Date: June.
- 159. Neptis aspasia Leech.
  - Entomologist 23, p. 37. Locality: Omei.
- Date: July.

  160. Neptis aceris F.
- Tagebuch Reis. Russ. 1, p. 203. Synonyms: Neptis lucilla Schrk.; Neptis plautilla Hbn.

Synonyms: Neptis lucilla Schrk.; Neptis plautil Locality: Suifu.

- Date: August.
- 161. Neptis intermedia Pryer.

Cist. Ent. 2, p. 231. Localities: Suifu, Omei. Date: August.

162. Neptis alwina Brem-Gr.

Lep. N. China, p. 7. Locality: Mochow.

Date: August.

#### Genus Limenitis F.

- 163. Limenitis sydyi Led.
  Verh. z-b. Gen. Wein. 1853, p. 357.
  Locality: Kwanhsien.
  Date: August.
- Limenitis homeyeri Tancre.
  Ent. Nachr. 7. p. 120.
  Localities: Kwanhsien, Omei.
  Date: July, August (K).
- 165. Limenitis cottini Oberth.Et. d'Ent. 9. p. 17.Locality: Tatsienlu.
- 166. Limenitis latefasciata Men.Schrenck's Reis. p. 14.Locality: Tatsienlu.
- 167. Limenitis sinensium Oberth.
  Et. d'Ent. 2. p. 25.
  Localities: Moupin, Sungpan.
  Date: July (M).

# Genus Pantoporia Hbn.

- 168. Pantoporia perius L.

  Syst. Nat. X, p. 471.
  Locality: Omei.
  Date: August.
- 169. Pantoporia serica Leech.

  Butt. China p. 168.

  Date: August.

  Locality: Omei.
- 170. Pantoporia ningpoana Leech.
  Wien. Ent. Mon. 1862, p. 27.
  Localities: Kwanhsien, Omel.
  Date: July, (O) August (K).
- 171. Pantoporia disjuncta Leech.

  Entomologist 23, p. 33.

  Locality: Omei.

  Date: August.

# 184 JOURNAL W. C. BORDER RESEARCH SOCIETY

172. Pantoporia recurva Leech

Butt. China p. 176. Locality: Moupin.

173. Pantoporia punctata Leech

Entomologisy 23, p. 23. Locality: Tatsienlu.

174. Pantoporia constricta Alph.

Rom. Mem. Lep. 5, p. 110. Locality: Omei.

Date: July.

Genus Stibochiona Btlr.

175. Stibochiona nicea Gray

Lep. Ins. Nepal. p. 13.
Synonym: Adolias dolope Fldr.
Locality: Kwanhsien.

Date: August.

# SUBFAMILY EUTHALIINAE

Genus Auzakia Moore

176. Auzakia danava Moore

Cat. Lep. E. I. C. I. p. 180.

Locality: Omei.

Date: July.

Genus Euthalia Hbn.

177. Euthalia omeia Leech

Entomologist 24, Suppl. p. 25. Synonym: Euthalia consobina Leech

Localities: Kwanhsien, Omei. Date: July, August (O).

178. Euthalia pyrrha Leech

Butt. China p. 137. Locality: Moupin.

179. Euthalia leechi Oberth.

Bull. Ent. Soc. Fr. 1907, p. 257.

Locality: Omei.

#### 180. Euthalia kardama Moore

Trans. Ent. Soc. Lond. 1859, p. 80.
Synonym: Euthalia armandiana Pouj. Locality: Kwanhsien.
Date: July, August.

181. Euthalia confucius Westw.

Gen. Diurn. Lep. p. 291. Locality: Kwanhsien. Date: July, August.

182. Euthalia pratti Leech

Entomologist 24. Suppl. p. 4. Locality: Szechwan.

183. Euthalia thibetana Pouj.

Bull. Soc. Ent. Fr. 1885, p CCV. Synonym: Euthalia staudingeri Leech Localities: Kwanhsien, Omei. Date: July (K), August (O).

184. Euthalia hebe Leech

Entomologist 24, Suppl. p. 4. Locality: Omei.

# SUBFAMILY VANESSINAE TRIBE CALINAGIDI

Genus Hestina Westw.

185. Hestina assimilis L.

Syst. Nat. X, p. 479. Locality: Kwanhsien. Date: July, August.

186. Hestina nama Dbl.

Ann. Mag. Nat. Hist. (1) 16, p. 232. Locality: Omei. Date: August.

187. Hestina namoides Nicev.

Journ. Bomb. Soc. 13, p. 166. Locality: Szechwan.

#### TRIBE HYPOLIMNIDI

Genus Isodema Fldr.

188. Isodema adelma Fldr.

Wien. Mon. 6, p. 26. Locality: Kwanhsien Date: July.

Genus Kallima Dbl.

189. Kallima chinensis Swinh.

Ann. Mag. Nat. Hist. (6) 12, p. 255. Localities: Kwanhsien, Omei, Suifu, Moupin. Date: August (K;O).

#### TRIBE VANESSIDI

Genus Junonia Hbn.

190. Junonia iphita Cr.

Pap. Exot. 3, p. 30. Locality: Omei. Date: July, August.

191. Junonia almana L.

Mus. Lud. Ulr. p. 272. Localities: Chengtu, Omei. Date: June (O), October (C).

192. Junonia asterie L.

Syst. Nat. X, p. 472. Localities: Chengtu, Kwanhsien, Omei. Date: July.

193. Junonia isocratia Hbn.

Verz. bekannt. Schm., p. 34. Locality: Sungpan. Date: September.

194. Junonia hierta F.

Ent. Syst. Suppl. p. 424. Syonoym: Junonia cenone Cr. Locality: Tatsienlu. Date: July. 195. Junonia orithya L.

Mus. Lud. Ulr. p. 278. Localities: Chengtu, Kwanhsien, Omei. Date: July (C;O), August (K).

# Genus Pyrameis Hbn,

196. Pyrameis indica Hbst.

Naturs. Ins. 7, p. 171. Synonym: Pyrameis calliroe Hbn. Localities: Chengtu, Kwanhsien, Omei. Date: May (C) August (O), September (K).

197. Pyrameis cardui L.
Syst. Nat. X, p. 475.
Localities: Chengtu, Kwanhsien, Sungpan.
Date: July (C; K; Su), August (Su).

#### Genus Vanessa F.

198. Vanessa chinensis Leech

Butt. China p. 258.
Synonym: Vanessa thibetana Aust.
Localities: Sungpan, Moupin.
Date: July (M).

199. Vanessa antilopa L.
Syst. Nat. X, p. 276.
Locality: Tatsienlu.

200. Vanessa canace L.

Syst. Nat. (XII), p. 779. Locality: Kwanhsien. Date: July.

201. Vanessa charonia Don.

Drury Ill. Ex. Ent. 1. Localities: Wenchuan, Moupin. Date: August (M).

# Genus Polygonia Hbn.

202. Polygonia hamigera Btlr.

Ann. Mag. Nat. Hist. (4) 19, p. 92. Synonym: Polygonia fentoni Btlr. Locality: Tatsienlu.

# 188 JOURNAL W. C. BORDER RESEARCH SOCIETY

203. Polygonia extensa Leech

Butt. China p. 265.

Localities: Chengtu, Kwanbsien.

Date: May (C), July (K), September, October (C).

204. Polygonia j-album Curo.

Bull. Soc. Ital. 6, (1874) p. 315.

Synonym: Polygonia autumnalis Curo.

Locality: Tatsienlu.

205. Polygonia c-aureum L.

Syst. Nat. X, p. 477.

Localities: Sungpan, Moupin.

Genus Araschnia Hbn.

206. Araschnia doris Leech

Butt. China p. 272.

Locality: Kwanhsien.

Date: August.

Genus Symbrenthia Hbn.

207. Symbrenthia lucina Cr.

Pap. Exot. 4, p. 82.

Synonyms: Symbrenthia khasiana Moore; Symbrenthia

asthala Leech; Symbrenthia nec Moore.

Locality: Omei. Date: August.

#### TRIBE ARGYNNIDI

Genus Melitaea F.

208. Melitaea obtecta Seitz.

Macrol. vol. 1, 1906, p. 220, Locality: Szechwan.

Genus Timelaca Luc.

209. Timelaea nana Leech

Locality: Omei.

Date: July, August.

Genus Argynnis F.

210. Argynnis dia L. Syst. Nat. (Ed. XII) p. 785,

Locality: Sungpan.

211. Argynnis gong Oberth.

Et. d'Ent. 9, p. 15. Locality: Sungpan.

212. Argynnis genia Fruhst.

Iris 16, p. 308. Locality: Sungpan.

213. Argynnis bessa Fruhst.

Int. Ent. Ztschr. 1, p. 257. Localities: Sungpan, Tatsienlu.

214. Argynnis nerippina Fruhst.

Soc. Entom. 22, p. 68. Locality: Kwanhsien. Date: June.

215. Argynnis laodice Pall.

Reis. Russ. 1, p. 470. Synonym: Argynnis cethosia Hbn. Localities: Kwanhsien, Tatsienlu. Date: June (K).

216. Argynnis childreni Gray

Zool. Misc. 1, p. 33. Localities: Chengtu, Sungpan. Date: July (Su), October (C).

217. Argynnis sagana Dbl. Hew.

Gen. Diurn. Lep. Localities: Chungking, Kwanhsien. Date: May.

218. Argynnis paphia L.

Faun. Suec. p. 281. Locality: Kwanhsien. Date: July.

219. Argynnis niphe L.

Syst. Nat. XII, 1, p. 785. Synonyms: Argynnis hyperbius Johanns; Argynnis ante L. Localities: Kwanhsien, Tatsienlu. Date: July (K).

220. Argynnis clarina Stgr.

Stgr-Reb. Cat. Pal. Lep. p. 38. Locality: Sungpan. 221. Argynnis hyperbius Joh.

Locality: Omei. Date: July.

222. Argynnis rudrina Fruhst.

Entom. Ztschr. Stuttg. 21, p. 163. Locality: Szechwan.

223. Argynnis megalegoria Fruhst.

Soc. Entom. 22, p. 67. Locality: Szechwan.

224. Argynnis samana Fruhst.

Entom. Ztschr. Stuttg. 21, p. 163. Locality: Omei.

Date: July.

#### TRIBE HELICONIDI

Genus Cethosia F.

225. Cethosia biblis Dru.

Ill. Exot. Ent. 1.

Synonyms: Cethosia biblina Godt.; Cethosia penthesilea F.;

Cethosia nec Cr.

Locality: Omei.

#### TRIBE ACRAEIDI

Genus Pareba Dbl.

226. Pareba vesta F.

Mant. Ins. 11, p. 14.

Synonyms: Pareba terpsicere Cr.; Pareba anomala Koll.

Locality: Kwanhsien.

Date: August.

#### FAMILY ERYCINIDAE

#### SUBFAMILY NEMEOBIINAE

Genus Zemeros Bsd.

227. Zemeros flegyas Cr.

Pap. Exot. 3, p. 158.

Locality: Kwanhsien.

Date: August.

#### Genus Abisara Fldr.

228. Abisara echerius Cr.

Pap. Exot. Suppl. p. 141. Locality: Kwanhsien. Date: July.

229. Abisara lydda Hew.

Exot. Butt. 3, Localities: Kwanhsien, Omei, Date: July (K).

#### Genus Dodona Hew.

230. Dodona sinica Mengel.

Leech, Butt. China p. 291. Localities: Kwanhsien, Omei. Date: July.

231. Dodona ouida Moore

Proc. Zool. Soc. Lond. 1865, p. 771.
Synonym: Dodona erato Bsd.
Locality: Szechwan.
Genus Stiboges Btlr.

232. Stiboges nymphidia Btlr.

Proc. Zool. Soc. Lond. 1876, p. 309. Locality: Omei. Date: July.

# FAMILY LYCAENIDAE

## TRIBE THECLINI

Genus Rapala Moore

233. Rapala nissa Koll.
Hugel's Kaschm. 4, (2), p. 412.
Synonym: Rapala subpurpurea Leech
Localities: Chengtu, Kwanhsien.
Date: June (C), July (K).

Genus Camena Hew.

234. Camena ctesia Hew.

Ill. diurn. Lep. Lycaen. p. 48. Locality: Kwanhsien. Date: August.

#### 192 JOURNAL W. C. BORDER RESEARCH SOCIETY

235. Camena icetas Hew.

Ill. diurn. Lep. Lyc. p. 41.

Synonym: Camena contractus Leech

Locality: Szechwan.

#### Genus Niphanda Moore

236. Niphanda Lasurea Greas.
Berl. Ent. Ztschr. 19, p. 214.
Localities: Chengtu, Kwanhsien.
Date: May, July (K).

#### Genus Thecla F.

237. Theela lais Leech

Butt. China p. 363.
Locality: Szechwan.
Date: September.

238. Thecla mauretanica Stgr.

Iris 5, p. 279. Localities: Kwanhsien, Penshan. Date: July (K).

239. Thecla eximia Fixs.

Rom. Mem. Lep. 3, p. 271. Synonym: Theela affinis Stgr. Locality: Kwanhsien. Date: July.

#### Genus Zephyrus Dalm.

- 240. Zephyrus coruscans Leech Butt. China p. 373. Localities: Kwanhsien, Omei. Date: July.
- Zephyrus jankowskii SeitzMacrol. 1, p. 370.Locality: Szechwan.
- 242. Zephyrus bieti Oberth. Et. d'Ent. 9, p. 19. Locality: Tatsienlu.
- 243. Zephyrus enthea Jans.

Cist. Entom. 2, p. 157. Locality: Kwanhsien. Date: July, August.

#### 244. Zephyrus comes Leech

Locality: Tatsienlu.

#### TRIBE POLYMMATINI

Genus Curetis Hbn.

#### 245. Curetis acuta Moore

Ann. Mag. Nat. Hist. (4) 20, p. 50.

Synonym: Curetis truncata Moore (female).

Localities: Kwanhsien, Omei.

Date: July.

#### Genus Herda Seitz.

#### 246. llerda marica Leech

Butt. China p. 407.

Localities: Chungking, Kwanhsien.

Date: July, August (K).

#### 247. Ilerda brahma Moore

Horsf. & Moore, Cat. Lep. E.I.C.I. p. 29.

Locality: Omei.

Date: July, August.

#### 248. Ilerda epicles Godt.

Enc. Meth. 9, p. 646.

Locality: Omei.

Date: August.

#### Genus Aphnaeus IIbn.

#### 249. Aphnaeus zoilus Moore

Proc. Zool. Soc. Lond. 1877.

Localities: Kwanhsien, Penghsien.

Date: May (K), June (P).

#### TRIBE LYCAENINI

Genus Polyommatus Latr.

#### 250. Polyonimatus baeticus L.

Syst. Nat. (12) p. 789.

Synonyms: Polyommatus boetica Horsf.; Polyommatus

pisorum Fourc.; Polyommatus coluteae Rossi.

Localities: Chengtu, Kwanhsien.

Date: May (C), July (K), October (C).

Genus Catachrysops Bdv.

251. Catachrysops eneigus F.

Ent. Syst. Suppl. p. 430.

Synonym: Catachrysops patala Koll.

Locality: Kwanhsien.

Date: August.

Genus Chilades Moore

252.Chilades laius Cr.

Pap. Exot. 4, p. 62.

Locality: Kwanhsien.

Date: August.

Genus Everes Hbn.

253. Everes argiades Pall.

Reis. Russl. 1, p. 472.

Synonyms: Everes tiresias Rott.; Everes amyntas Schiff.

Locality: Kwanhsien.

254. Everes filicaudis Pryer

Cist. Entom. 2, p. 231.

Locality: Kwanhsien.

Date: July.

Genus Lycaena F.

**2**55. Lycaena pheretes Hbn.

Smmlg. Schmett., p. 45.

Synonym: Lycaena atys Esp.

Localities: Sungpan, Tatsienlu.

256. Lycaena amandus Schn.

Neu. Mag. Entom. 4, p. 428.

Synonym: Lycaena icarius Esp.

Localities: Sungpan, Tatsienlu.

257.Lycaena atroguttata Oberth.

Et. d'Ent. 2, p. 21.

Locality: Tatsienlu.

Genus Cyaniris Dalm.

258.Cyaniris argiolus L.

Fauna Suec., p. 284.

Synonym: Cyaniris acis F.

Localities: Chengtu, Kwanhsien.

Date: May (C).

259. Cyaniris hersilia Leech

Butt. China p. 319. Locality: Kwanhsien. Date: July.

260. Cyaniris oreas Leech

Butt. China p. 321. Locality: Kwanhsien. Date: July.

261. Cyaniris albocaerulea Moore

Proc. Zcol. Soc. Loud. 1879, p. 139. Locality: Kwanhsien. Date: July, August.

Genus Taraca Nicev.

262. Taraca hamada Druce

Cist. Entom. 1, p. 361. Localities: Chengtu, Kwanhsien, Omei.

### A SURVEY OF ENDEMIC GOITRE

With Special Reference to the Gold Rivers District in the Chino-Tibetan Border Marches.\*

#### S. H. LILJESTRAND

#### I. Introduction and Geography.

The presence of untold numbers of people having goitrous enlargment of the neck, in certain areas, has been known for a "Goitre" is a French word meaning any enlargement of the thyroid body or gland, causing a swelling in the front part of "Endemic" refers to the presence of the disease in a considerable proportion of the community, or area, being continuously present or recurring.

Goitre is practically a universal disease. It is found throughout the world, most frequently in mountainous districts:

but it may be found anywhere.

Jeffery's and Maxwell in "Diseases of China", show small islands of endemic goitre in the N.E., and in S. China, an indefinite area; but the heavily affected areas extending from Manchuria and Shansi on the North, West to Ching Hai, and South through the West China "border marches," through Yünnan, Kweichow and French Indo-China, and ending with the Katachins of Burma, so far have not been mapped out. Moreover, this goitre belt" is but the eastern boundary of a goitre area extending westward thru the Himalayas, where, on the Indian side, Mc-Carrison has made etiological studies of the disease, as will be noted. There, as in the Shansi Hills west of Peiping, many village populations are 100 per cent goitrous and it is difficult to find man, woman or child not deformed by a tumor.

A high incidence of goitre is found also in part of the Alps, in the Pyrenees and in New Zealand. Formerly Piedmont and Lombardy in Italy were areas of goitre and cretinism, which were apparently eradicated by a change of water supply. On a world map, therefore, the mountainous parts of the temperate and subtropical zones are especially affected: but goitre may be found in the Baikal District of Siberia, in Latvia, in Chile, and in the Belgian Congo. In England the highest incidence is in the Thames valley and in Derbyshire, where goitres have been considered even a mark of beauty. Renaissance painters often depicted lady subjects

with thyroid swellings.

<sup>\*</sup>Given before the W. China Border Research Society, October, 1932.

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MON GOITRE MAP o 0 Small circles indicate D NTSIN presence of Endemic Goitre.—S. H. LILJESTRAND K 0 0

Thyroid disease is, paradoxically, a penalty of both high and low states of civilization. For example, a broad band of goitre infestation extends across North America, through the Northern U.S.A. and Southern Canada. This belt corresponds interestingly to the "high energy climatic zone" of Huntington, as discussed in his book "Climate and Civilization", and reaches from New York state and the Province of Ontario to Oregon and British Columbia. This belt is low in iodine (less than 24 parts per billion of water). Michigan and Minnesota have the highest goitre incidence: 64% and 58% respectively. Mills has made interesting suggestions regarding the etiologic relation of goitre in this large area, to other metabolic diseases.

Goitre is, therefore, one of the major health problems of the world. It is a serious cause of imbalance of the endocrine or ductless gland system, causing sterility and other serious disturbances of function. Numerous articles have been published on thyroid disease and its causes. That the second International Goitre Congress met in 1933 in Basel to study only a limited phase of the goiter problem, is an indication of the interest and importance attaching to it. At the Mayo Clinic over 32,000 goitres were removed and studied between 1912 and 1931. As a medical mission problem in deserves larger and more active attention.

#### 2. Survey.

In our attack on the problem we are limited to the broader biological approach, attempting only to add the geophysical, and local environmental factors of the region of endemicity on the West China Border.

The writer made this investigation on a 600 mile walking tour, accompanied by Oscar Liljestrand, via Kuanhsien and Mowkong, to the Border Marches' (see maps) known in China as the Five Colonies, which date from the military occupation of the region by Emperor Ch'ien Long's army. Examination was made of as many cases as were encountered along the roads, and in towns and villages. The data obtained were limited by language difficulties, by the timidity of the people, and the absence of interpreters in many cases. The nationalities of the persons seen were Kiarong, Kehsi, Tibetan and Chinese half-casts.

Aren.—The area covered included all the Kinchwan (Gold River) district except the parts of the Tung or Great Gold River valley between Tanpa and Waskikeo, and above Bawang. Information regarding those parts was obtained, however, by seeing folk with goitre from them, who were able to give fairly accurate information regarding the incidence of goitre in those areas.

Method.—Geological, agricultural, economic, home-hygiene, medical and dietetic factors were studied. Each case was examined and listed as to—

Age when seen, 2. Duration of disease or time of onset. 3. Presence of symptoms, like difficult breathing, and tachycardia (rapid pulse). 4. Pulse rate. 5. Residence, 6. Sex. 7. Size of goitre, 8. Lobe or lobes involved, and relative size and symmetry. Classification of the tumor. 10. Cretinism. These items were tabulated from 75 cases. Many others were seen or heard of, without opportuntity for examination.

#### II. THEORIES REGARDING THE CAUSE OF GOITRE.

1. Deficiency theory.

Strangely enough, goitre is, as mentioned, a penalty of both high and low civilization; but in any case it is due to a strain on the vital capacity of the organism; this strain under normal conditions is met, and no harm results.

Goitre, therefore, is now classed as a "deficiency disease".

The deficiency may be due to;

(1) Low iodine intake. The thyroid gland requires a minimum amount of iodine to produce thyroxin for the use of the body. the iodine falls below the amount needed for ordinary functions, there is an "absolute deficiency". If the iodine intake is enough for ordinary purposes, but not sufficient to enable the body to meet certain strains, such as over-work, infection, puberty, and pregnancy, it may be called a "relative deficiency."

In either case, the thyroid gland increases in size and activity in order to meet the need for more thyroxin—This overgrowth or hypertrophy is described, under "classification," as simple

adenoma, or gland tumor.

(2) Low iodine—absorption factor. Recent work indicates a relation between Vitamin C. or ascorbic acid, (which are now thought to be identical), and the absorption of iodine. This is a dietary matter, of considerable importance, as found in certain Canadian foreign immigrant communities, (Abbott).

Excessive demand on Iodine store of the body.

McCarrison concluded that the lack of iodine, per se, is not sufficient to cause goiter, inasmuch as high iodine districts may have endemic goiter and low iodine territory often is free.

Toxicity Theory.

- (a) Infection. Goiter has been produced experimentally by feeding highly infected water thus causing a goitre reaction. Clinically, goitre is known to appear also in cases of acute infectious disease.
- Dietary substances. Boiled cabbage causes experimental goitre in animals. Marine found this true in rabbits; and he has also found that an extract of plant or animal tissues containing ascorbic acid reduces goitres. These extracts are characterized by a high iodine-absorbing property. Lawngrass, fresh alfalfa, skunk cabbage, and raw cabbage juice possess this iodine-absorption-

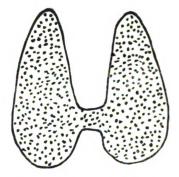
Drozur Liang Ho k 10850 ft Grass land Hsuching Hsuching GOLD RIVER Fu Pi Mu Kung Keo Pass ...×. 16,000 ft. 31 Badi Bawang RIVERA ITTLE GOLD Mowkong Latin Kay Kia Ku Yodsa Tanpa (Romi Chrango) (Chiang Ho) (Ma Huang) 6550 (Ma Huang) Pu Ko Tino o Tang ku

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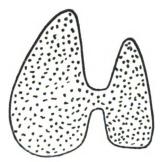
## PLATE I



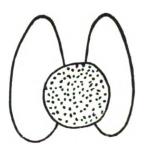
NORMAL THYROID



THYROID-SHAPED GOITRE



LATERAL, OR UNILOBULAR, GOITRE



MEDIAN or Isthmic GOITRE



NODULAR OR POLYCYSTIC

GOITRES

assisting property, and when eaten are thought to make more iodine available in the body.

(c) Hygiene therefore is evidently a large factor and this also depends partly on mental and physical conditions. In North America the high energy consuming type of life seems to be a large factor; while in the alpine areas diet, and cleanliness of food and water seem important. Intestinal mycosis has been suggested as a cause and of hyperthyroidism. Thymol have been suggested as toxic causes of thyroid disease.

(a) Mineral intake theory.

High calcium consumption is known to favor goitre. The mutually "toxic" action of ions is an established physiologic fact. Possibly the (Ca) ion acts as an anti-iodine-absorbing factor.

#### 3. Geological Theory.

The presence of mica schist in the Kinchwan or Gold Rivers area has been thought to have a causative relation. In the area studied, it was found that mica schist was present for a distance of about 10 miles in the Badi Country. North and south of this tract there is no mica schist, but goitre cases are abundant there as in the mica area. On the other hand, goitres were most numerous in the Great Gold River Valley north and south of the chasm through which it traverses the great east and west fault of the Little Gold River Valley, the mica bearing strata coming to the surface at this point and north ward to Badi. Here the deep strata, of limestone and calcite, have also come to the surface. In this case, lime would be abundant, giving room for the high calcium theory of goitre causation.

## III. Some Native Theories, and Living Conditions.

Notes on the geographic factors of the Gold River District The native appellation for Goitre is Heo-er-bao, or "Monkey Pouch" and the inhabitants have some theories as to its causes—

1. Drinking water. Although they seem to entertain little concern about it, the idea is quite common that goitre is caused by the drinking of the stagnant waters of the reservoirs that are maintained on the upper slopes and terraces. On the otherhand, some say that it comes from the drinking, when heated by work, of water from the streams of hillside farms.

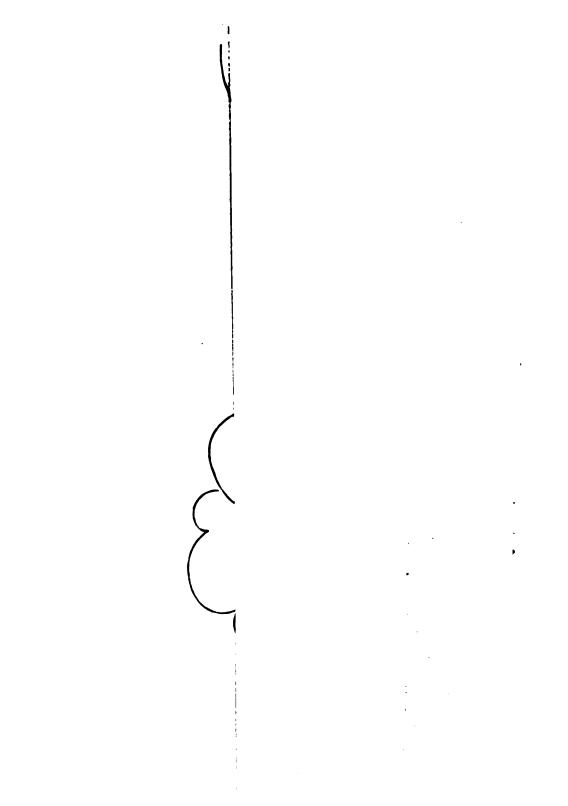
That these waters are often highly polluted is inevitable. It is a semi-arid climate and water is scarce. Each home is a battlemented castle and its walled in castle yard is often a deep mire of cattle manure; for the animals are housed in the bottom floor or basement of the 2 to 4 storey structure (see illustration).

Sanitary arrangements are scant, but an interesting feature of the Badi Bawang castles is the overhanging enclosed balcony, from which excrement falls either into the cattle yard or outside the castle wall. These latrines, however, are themselves quite clean, being high up on the 2nd or 3rd floor (lst or 2nd storey). (A Danish architect, Mr. J. Prip-Woller, told the writer that these utilitarian balconies were to be found on the fcudal-age castles of Europe.) It is on the second floor that the living apartments are located. Flies are extremely abundant and infest the kitchen, which is usually the first room entered on ascending from the castle enclosure. Food is prepared in a great hollow iron pan; in this water is heated for the making of tea; and in it "tsamba" (ground barley meal) is roasted. This meal is mixed with a tea and butter mixture which is made in a wooden churn (European plunger type.) This churn is sometimes fastened to the side of the fireplace. There is no chimney; the cooking apparatus is on the middle of the floor; and the heavily beamed ceiling is thickly coated with black creosote. We found the acrid smoke very trying to the eyes.

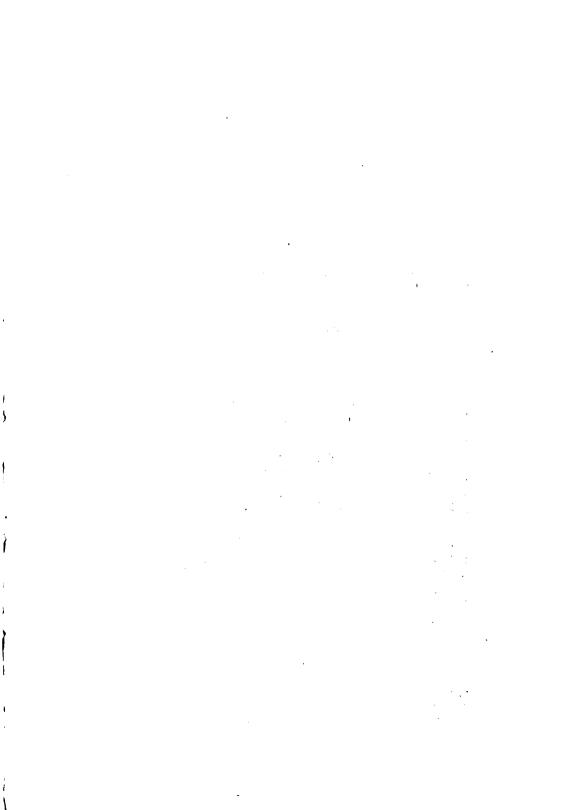
These valleys are infiltrated with a small population of Chinese who occupy the fertile valley floors (within easy reach of the garrison towns), and keep inns and shops. These Chinese, although somewhat intermarried with the "Yi Ren", and on friendly terms with these native states people, mildly manifest some racial superiority. They claim that they do not have "heo-er-bao" because they get water from the river, whereas the "man-kia", or "Yi-ren". 夷人 as they call the natives, get water from pools or cisterns. This is in each case by way of necessity, as the natives must occupy the highland, while the Chinese hug the water ways, where the main roads run. The natives, indeed, probably always occupied the uplands where they could better maintain themselves against their equally warlike neighbors; and the native Princes (who formerly held the peasants in serfdom, before the Chinese occupation) resided in the impressive fortress-castles that still stand at intervals in the pleasant valleys. The Chinese, by destroying this feudal system, have done a service to the native peasants, and possibly have thus indirectly reduced the amount of goitre by introducing new living habits, the boiling of water, and higher standards in general.

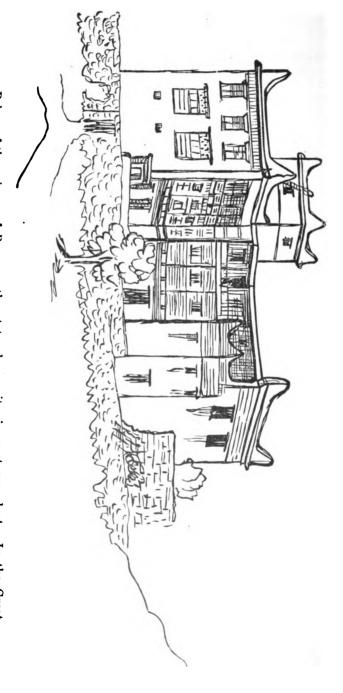
These conditions lend support to this oldest theory for the causation of goitre, namely, that the disease is "due to the character of the drinking water; and in a sense this (theory) may be true, since some waters, either by being heavily charged with bacteria, or containing some chemical substance, might increase the need for iodine in the body or divert the normal iodine intake" (Nelson)

intake". (Nelson)
2. "Grass-land"—Salt theory. The natives and Chinese both ascribe goitre to the use of salt from Kokonor (Ch'ing Hai) in the grassy plateau lands. This is still, for the purposes of this article, a matter of speculation, as none of this salt was obtained for analysis, (which we hope to have done). At any rate the introduction of salt from central Szechwan, which is fairly pure, may be a factor in preventing and reducing the incidence of goitre.



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Palace of the princes of Bawang, the state where goiter is most prevalent. In the Great Gold River (Kinchwan) Valley. The castle tower is for defence, as in medieval Europe. In fact, this valley is reminiscent of the Rhine. There is a rumor that this castle was gutted by fire last year.

Possibly the "grassland" salt is high in calcium (lime), which has been found to be a goitre inducing element. Fifty years ago Alex. Hosie\* observed goitre in the Chien Ch'ang Valley and made an interesting note on this theory.

3. Locality Theory. A frequent native explanation is the simple one, that certain localities are naturally goitrous. These are, in order of infestation:—Badi, Bawang, Kia-Kü, Molo, P'u-ko-Ting, Sopo, and southward along the unexplored and inaccessible T'ung River Valley. These are all in the watershed of the lower Great Gold, or T'ung River valley; but on extending our survey into parallel valleys emptying into the Little Gold River Fault, we found active foci, as in the T'sch-Lung valley, which empties at Taipingchiao; on the heights along the Fupien River valley, and along the valleys opening at KuanChai. Affected valleys emptying into the Great Gold River are—that of the Kehsi state, north of Romi Chrango (Tanpa Hsien), and the Mao Niu Valley, which comes down the west extension of the Little Gold River Fault and empties at Tanpa, into the Great Gold River.

The Survey Map shows, however, the heaviest incidence in the Great Gold R. Valley itself and it is evident that this is more thoroughly screened from the monsoons, which are the rain bearers of China, than the regions east of the Great Gold R. Valley. The first formidable rain screen is the Ba Lang Range, the barrier 80 miles away at the eastern head of the Little Gold Valley fault. The Balang has peaks evidently over 20,000 feet high, which are snow covered in Summer; and it is the eastern boundary of the Kinchwan District, or "Five Colonies," of the Emperor Chien Long's conquest.

No goitre is found east of the Balang Range and its southern connections. It is after crossing over it, westward, that one begins

<sup>\*</sup>A. Hosie, in "Three years in Western China" (1882-4) says:"

<sup>&</sup>quot;Although fortune usually smiles upon the valley of Chiench'ang the inhabitants of its many villages are not to ontward appearances a happy race. What strikes the traveller most with regard to them is the prevalence of the unsightly goitre, from which neither sex nor age is exempt. The natives attribute it to the impure salt from the brine wells of Pai-yen-ching, within the jursidiction of Yen-yuan Hsien, and their belief is, that north of Ning-yuan Fu the salt supply comes from the northern salt springs, and that where this salt is consumed, goitre is enceedingly rare, while south of Ningynan only local salt is used and goitre is excessively common. This can hardly be reconciled with the statements made to me by the inhabitants of the mountainous regions of the province of Kuei-chow, where goitre is likewise remarkably prevalent. They were unanimously of opinion that disease is due to the salt from the northern springs of Ssa ch'uan, which supply the entire province of Kweichow. But the true origin of the disease is doubtless to be ascribed to calcareous and other substances held in solution in the water supply of the districts.

to find these focal points of infestation on the heights north and south of the Little Gold, in the clan fortresses of the "Mankia," or natives, of the Kiarong states.

- 4. Use of local earth-salt theory. We were told that "salt water" is made by leaching the soil of certain localities, and using the solution for seasoning. I found a whitish substance crystallizing from moisture seeping out under a cliff. I tasted it but got no special saline flavor; the next day however I had uncomfortable intestinal feelings but they might not have been due to the salt water. The view that this mineral contains arsenic may be true as crystals of what purports to be arsenate of iron are very abundant in the rocks of the Gold Rivers district, and their decomposition might produce the "salt" thus extracted.
- 5. Poisoning by wild thyme. Wild thyme is a common plant in the semi-arid valleys of the Kinchwan and it would not be surprising if in times of food scarcity, more or less should be eaten. Thymol, the aromatic substance extracted from thyme and familiar to users of toothpastes and other pharmaceuticals, has been suspected by investigators of having some relation to goitre, whether by directly poisoning the thyriod gland or by overloading the antitoxic function.

Although some or all of the causes enumerated may be found in connection with goitre, it must be recognized that goitre, in a general biological sense, is the expression of the reaction of the human organism in an unequal battle between itself and its environment.

We might draw attention to a statement by James Berry in 1901: "But although goitre in most cases is to be regarded as an endemic disease, caused by a definite poison, whatever the poison may be, it is impossible to assert that all cases of goitre originate from the same cause." After thirty years of intensive study by the profession in all parts of the world, the statement still holds. Our only hope is that further study and research will enable us to eliminate the scourge, not with the knife but by preventive medicine.

#### CLASSIFICATION OF THYROID ENLARGEMENT

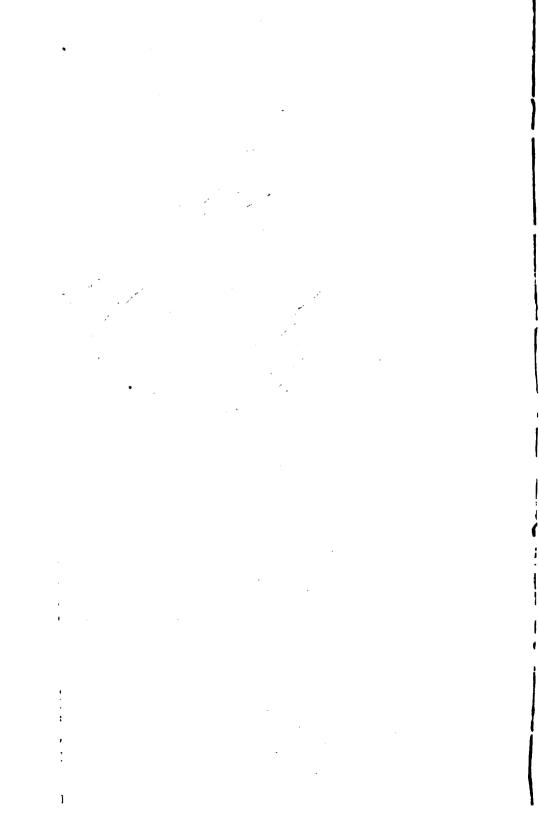
Before it is possible to state the percentage incidence of thyroid enlargement, it is necessary to have a standard of classification. Marine's original classification, glands being graded as normal, slight, medium or large, is as follows: (quoted by Abbott).

Normal—(a) Not visible as a bulging across the trachea. (b) The isthmus can barely be detected across the trachea. (c) The lobes are either not palpable or barely palpable. (footnote)

SLIGHT—(a) Visible bulging of the isthmus over the trachea.
(b) A wide band of tissue extending across the trachea. (c) Readily palpable lateral lobes.



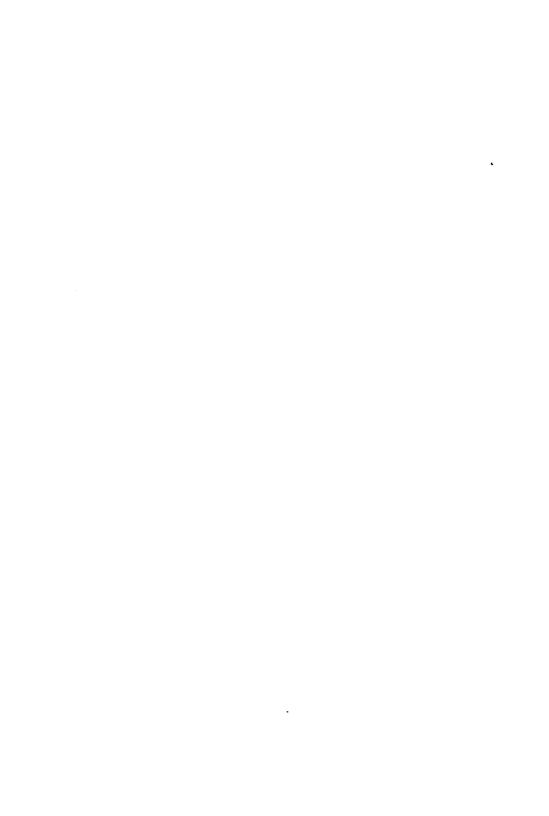
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37	12	7.7	38	9%
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the above mentioned points is liable to lead to faulty conclusions." - Abbott



MEDIUM—Those with moderately large palpable lateral lobes and a well marked isthmus.

Large—Those with large palpable lateral lobes and a well marked isthums.\*

### Analysis of cases (Table 1)

## 1. Ago of Cases when seen (Table 2).

Listing cases by decades shows that most are in middle age, when the strain of life is hardest. The 4th decade is the peak. This may be partly due to the fact that the homes could not be visited, where more children and old people with goiter would doubtless be found. The average age = 38.6 The youngest seen, 15; the oldest 72 years.

2.	Age	of	Onset	(Table	3)

Those questioned usually agreed that most cases began at puberty. The cases in Table 3 showed the greatest incidence in the 2nd decade; but it also reveals that tumors appeared at all ages. Puberty, and the strain of life in middle age, seem to be the causes in the great majority cases. Congenital cases were spoken of as not rare.

Table 2		
Ages	No. Cases	
1-10 11·20 21·30 31·40 41-50 51-60 61-70 71·80	0 9 14 222 17 7 4 3	

Table 3		
Ages	Cases	
Prenatal 1-10 11-20 21-30 31-40 41-50 51-60 61-70	1 7 21 14 16 6 2 2	
	69	

<sup>\*</sup> It is very interesting to watch the different methods used in examining a thyroid gland. It is essential not only in surveys of this nature but also in private practice, to have a correct method of estimating the size and consistency of a throid gland. To have any idea of the actual size of a thyroid lobe one must actually palpate the lobe between one's fingers and thumb. This can only be done by using a very definite technique. The best method is for the examiner to face his patient, preferably standing up. To palpate the right lobe he must place his right hand on the left shoulder, palm downward, and with th thumb gently applied against the left lateral wall of the trachea. Displace this structure together with the thyroid over to the right side. The examiner next places the finger of his lift hand on the right side of the neck behind the posterior border of the sterno-mastoid muscle. The thumb naturally fally falls in front of the anterior border. In this way the finger and thumb surround the sterno-mastoid, and the right lobe of the thyroid is very easily picked up, lying just posters-medial to it. It is now an easy matter to define its oatline, whether smooth or nodular, and to determine whether it is firm and granular, or soft and elastic. In some cases tenderness will be elicited. Normally, on asking the patient to swallow, the finger and thumb can be made to meet below the lower pole and one can in this way fix the thyroid high in the neck. After a short experience one becomes quite accurate in measuring the length, width and breadth by simple palpation. To palpate the left lobe, one simply reverses. Any failure to cover all the above mentioned points is liable to lead to faulty conclusions."-Abbott

3. Duration of Noticeable Tumor. Cases ran from 1 month to 50 years. 33,-almost half of the cases,-had a duration of 5 years or less, before being seen. 12 of these were 1 year or less in duration. The other cases were scattered over the whole range of 6 to 50 years.

The average duration was 11.8 years.

4. Sex. Contrary to ordinary statistics more men (45) than women (31) were seen. It has been observed that with

Duration in Years	Cases
0-1	12
1-5	21
6-10	7
11-15	4
16-20	6
21-25	1
26 30	6
31-35	3
36-40	2
41-45	1
46-150	2

- a moderate incidence of cases, the majority are in women; but with a heavy incidence, parity of sexes more or less prevails. Under the condition of this study, in which it was impossible to comb any one community thoroughly for cases, it is natural that more men than women should be seen; as the latter would be less frquently seen on the highways. This is not as strong a reason as it might be, as during our stay in the Great Gold valley, we met many groups of nationals going to market and these were quite evenly devided as to sex. Children were seldom seen. The birth rate probably is low, as the "tribes" are barely holding their own in population.
- 5. Nationality. Three cases were Chinese; one (No. 44) a half-Chinese old lady of vivacity and poise, apparently well-to-do. The rest were mostly members of the Kiarong nation, belonging chiefly to the peasant farmer class, and apparently very poor people, of the Badi, Bawang, and Keshi Communities. Several were lamas (Tibetan monks), of some years residence in this region.
- 6. Pulse Rates.

Of 60 cases examined, 11 had a pulse rate lower than 71, while 49 were higher, 3 being over 101. Most of the cases were resting or idling by the roadside.

7. Symptoms. Palpitation and dyspnea were complained of in 5 cases. A man (case 76), with marked goitre, hailing from the lower Gt. Gold valley, testified than "most cases"

Pulse Rate	No. of
50-60	4
61-70	7
71-80	18
81-90	15
91-100	10
101-110	3
	60

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there suffered from palpitation and difficult breathing. In general, many showed no signs other than the 'lump', and were going about their work without complaint. They only had symptoms, if any, in hill climbing; but climbing is al-

ways necessary in that country, up to their castles on the heights.

Myxedema was marked in only 1 case. There were signs of mild myxedema in a few others.

### 8. Description of Tumors.

According to the Mayo Goitre studies, these goitres are classed as thyroid shaped and nodular. As a matter of morphology in Table 5 the number of

phology, in Table 5 the number of 'asymmetric' tumors is 24, "very hard' 3, and "pulsating' 2. This shows the great majority to be simple hypertrophy, ('thyroid-shaped), which is a simple over growth of the gland structure in an effort to compensate for the increased demand for thyroxine by the body.

As a matter of	11101
Table 6	
Classification	No.
Thyroid-shaped, soft. Asymmetrical Nodular Very hard Pulsating	44 24 8 3

#### 9. Involvement of Lobes.

- (a) Both lobes were visibly involved in 31 cases;
   Lateral and median lobes very all enlarged in 13 cases.
- (b) One Lobe alone: Median 46; right 11; left 1.
- (c) Irregular nodular enlargement occurred in one case, making it difficult to locate the point of origin of the mass.
- Symmetry of bilateral tumors, Judging by the apparent size, the right was greater than left in 15; right equal to left, 14; left larger than right in only 2. Median enlargement larger than both lateral tumors in 7. All three lobes were equally enlarged in 3 cases.

#### THE ECONOMIC FACTOR IN THIS GOITRE REGION

The economic condition of the Kiarong and the other nations is evidently of importance in the etiology of goitre.

1. DIET. Famine or near-famine conditions threaten the existence of these people. Their standard diet consists of maize (Indian Corn) with the ground meal of which they bake cakes in the open fires. Ground and roasted barley meal is mixed with buttered tea and this is eaten at home or on the roadside when traveling to market. For vegetables, they have Chinese turnips and some journey. They cabbage, though these plants were little in evidence to us on our thus get little of the vitamines necessary for health and procreation, altho they are potentially a fine race. Their chief lack would seem to be vitamine C, as the citrus fruits are almost entirely absent. Some fine pears are produced; the Kinchwan

Pear is much sought after in Chengtu, but its availability for most of the peasants of the Kinchwan is probably almost nil.

During our stay in Badi, a fine featured old man came to our camp and told a tale of poverty and disease in a fortress village across the Tung River; he evidently was very anxious for us to visit the place, which in the distance looked like a romantic castle of medieval chivalry in Europe. Inwardly it was full of physical and spiritual want. Let us hope for better life to come there. The introduction of new fruits and vegetables and better grains, together with a knowledge of physical, mental and spiritual hygiene, would make a beautiful race of this pathetic people.

2. Opium is making bad inroads both by way of taking the place of crops and so contributing to famine conditions; and also by its use as a narcotic. I was invited to see the wife of a Tusi or Headman and I found her tuberculous and opium ridden. Mowkong has become a big opium exporting center and the peasants are paid for their crop of opium with goods brought in by the merchants who

are often natives of northern or eastern provinces.

#### SUMMARY AND CONCLUSIONS.

1. A study of endemic goitre in the Gold Rivers district is presented. This district is contiguous to and continuous with a wide area with a high percentage of goitre extending in an arc from Manchuria to Burma through western Szechwan, and extending westward to Kokonor and Lake Baikal on the north, and to the Himalayas of Northern India on the south.

2. Several causal factors have been enumerated. No one factor can lay claim to being a sole cause. The following may be

given as contributing causes in this area:

(a) Presence of anti-iodine-absorbing minerals.

(b) Low hygienic standards, manifesting themselves in the use of infected waters; poor diet, low especially in vitamin C; use of known goitre-producing vegetables, or plants capable of causing a toxic reaction; use of saline waters from local earths; unhygienic home conditions.

(c) Presumably a relatively deficient iodine supply exists.

3. It is suggested that the largest factor is a low standard of life in which lack of hygiene and poor diet are combined with a rigorous life in an unequal struggle for existence. Statistical tables are presented showing that the greatest incidence of goitre is in middle life when the strain of laber and childbearing are greatest and exposure to infection from polluted waters probably most frequent.

4. Goitre is therefore, in these endemic areas, a problem of preventive medicine, and social and economic rehabilitation. The nations affected must have a good constitutional background in order to have stood the hardships of life, of which endemic goitre is an expression. Some, however, as at Badi-and Bawang are losing ground, having, according to J. H. Edgar, lost almost 50% in population. in 30 years

The author wishes to express his appreciation to Mr. J. Huston Edgar for his encouragement and assistance in making this survey. Also to Mr. John R. Sinton for his cooperation thoughout the

journey.

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#### 208

# THE GOLDEN AGE AND THE DARK AGE IN HANCHOW, SZECHWAN

#### I. FANG KUNG AND THE GOLDEN AGE.

#### V. H. DONNITHORNE.

The title of our subject is given us by two ancient stones which have recently come to light at Hanchow, and at the present time are standing almost side by side in the public park there. These two stones are full of history and if they could speak would have a most interesting story to tell, for they serve to bring together in picturesque apposition the extremest contrasts in the history of Hanchow, and indeed of all Szechwan, or of all China. They stand in close connection, respectively, with the best man and the worst man, with the brightest days and the darkest days, in the life of this city.

## THE FANG SHIH KUNG 房公石.

The first of these stones is the one called the "Duke Fang Stone", which now stands on a pedestal outside the Confucian temple where it was placed by command of General Ch'en Gin-hsuan, who quickly realised its historical interest. It takes us right back to the days of the Tang dynasty, and apart from all conjectures about his being the founder of a Christian church in Szechwan, we are perfectly safe in asserting that the period of the rule of Duke Fang was the "Golden Age" in Hanchow.

But it is necessary to tell the story of how my attention was first attracted to this Stone, and what patient investigation of many months revealed.

At the beginning of 1933 the old stone, having been removed unceremoniously from its old location in the Yamen compound, where it had stood for twelve hundred years, was lying in the mud alongside a public footpath. It was plain that there were ancient characters on the stone but they were practically undecipherable by reason of a thick deposit partly of dirt and partly of dried chickens' blood.

One day when I was bending over the stone trying to make out some of the characters, a well-dressed stranger passing by stopped and said, "Yes, you do well to be interested in the stone, for that man was a Christian, too." That remark led me to pay more than usual interest to the stone. Close study of a photograph with a magnifying glass enabled the whole inscription to be read.



THE "FANG KUNG STONE"



with the exception of a few obliterated characters; and it was found to read thus:

"Ta Ming Ch'en hua, third year, (i.e., A. D. 1467) . . . . Ch'ai and others. To record that the T'ang dynasty Prime Minister FANG . . . having been dismissed from his office as prime minister, became Prefect (Tz'i Shih) of Hanchow, and set up this Stone. It is now named DUKE FANG STONE.

WANG YIN, Judge
HSU NING, Head Constable"

The inscription thus dates from the middle of the 15th century, but the stone itself, as we shall see later, was set up on the site where the magistrates' residence has ever since stood, in the middle of the 8th century.

At that time the name Fang Kung conveyed nothing to me. The next thing was to find out whether it conveyed anything to the residents of Hanchow. I began to ask questions. May I say here, that my experience all along has been that it is no use trying to elicite the truth in such cases by direct questions in the style of a barrister elucidating a case. The treasure-house of memory in which the local legends lie stored away is not so easily opened. It is after a long evening spent chatting intimately over the comforting brazier that the magic begins to work and memories of long ago are unloosed. Better still is a long country walk when a small company get chatting together. I remember a particular walk of 30 li, returning to Hanchow on a lovely day in spring, when I learned more about Fang Kung than ever before. After a long pause in the conversation with which we were beguiling the journey, I said, "Do any of you know anything about an old stone with the name Fang Kung on it which is lying on the road in the Park? Who was this Fang Kung?" The correct magic spring had been touched and tongues continued wagging all the rest of the way, until I was in possession of the whole local legend concerning Duke Fang. One man remembered that his grandfather had told him so and so; another remembered being taken to such and such a place when he was a small boy, and what he had seen and heard there.

#### THE LOCAL LEGEND.

I will first set down the local legend here exactly as I heard it in those talks on the road and over the brazier, because these ancient local legends, where they can be collected, are apt to en-

<sup>\*</sup>Inscription on Fang Kung Shih: A paragraph found in the Han Chon Chih 漢州志 proves that the inscription should read; "Ch'en-hua, third year. The Magistrate Ch'ai Kuang 楽費 records that . . . ." By the engraver the character 客 teng, "others", has been carelessly substituted for the proper character kuang, 廣

shrine, though in a distorted form, essential historical truth which often has no other repository. The story then goes as follows:

Fang Kung was a very great man, much the best and wisest governor Hanchow ever had, indeed one of the greatest men in Chinese history. He was Prime Minister of the Empire in the Tang Dynasty, and was famous for his unbending probity. Almost all give his name as Fang Hsuan-lin. But he had enemies in the Emperor's court who concentrated all their guile upon securing his downfall, which eventually they were successful in procuring. There is much dispute at this point about what was the nature of One maintained it was because of a the accusation against him. defeat in battle; another, a Christian, that it was because he had opposed the superstition of the Emperor in worshipping idols; but it was generally agreed that he fell into disgrace owing to some stand he made against superstition, and that in this as in other matters he is exactly parallel to the other great disgraced minister of the T'ang Dynasty, Wen Kung (Han Yu), with whom he is continually associated and compared in the Hanchow legend. Having been dismissed from his high office at court he was sent to become the Prefect of Hanchow, and in a very short time had made that city the model of benevolent government to the whole of Szechwan, and had won an imperishable place for himself in the hearts of its people from that day to this, so that he is still today the best remembered and best loved of all the governors of Hanchow. rules as a small king over his five towns, and built his court on the site where ever since the Yamen has stood. In the second court of the Yamen he built a Platform (t'ai), or Altar (t'an), upon which he placed a pillar, and to this sacred place he used to go every day to worship God. He worshipped the God of Heaven only, and did not worship any other gods. ("T'a Kuang shih pai T'ien Lao-yeh; t'a mei-yu pai pieh tih shen''). This altar was enclosed on all sides and only Duke Fang himself was allowed By his justice and benevolence and loving government he was universally respected long after his death, even until today; and in particular the devout manner of worship in which he daily engaged was for long remembered. In consequence this alter became a place of pilgrimage, where worship was performed for hundreds of years after his death, becoming, as was inevitable, more and more involved in superstition as time went on. very recent years the remains of this altar existed and were enclosed in a pavilion with a railing round. People who had law-suits pending at the Yamen, used to go there and perform sacrifice, and make a vow, (Hsii ko yuan 許伽願) at what had become a shrine, killing a chicken and dropping its blood on this Stone (Fang Kung Shih) and all round the four sides of the enclosure. Some of my informants had themselves seen this superstitious worship carried on. At length, when General (then Colonel) T' ao Tsong-pei, himself a leading Christian, became magistrate, he determined to put an

end to this superstitious worship which was being practised inside his own yamen, and he caused the enclosure to be destroyed, and the Stone to be removed.

So far the local legend. Duke Fang's name is still, after these 1200 years, the most honoured name in Hanchow, and traces of him may be met everywhere. Within the Yamen is the Memorial Arch which marks the place where his altar stood; and also Fang Kung's Well, on which is an inscription commemorating his gift of this well to the people.

It would appear from its peculiar shape that the Fang Kung Shih is a fragment from the base of the pillar which it is said Fang Kung set up upon his altar. This is by no means certain, however, and a commoner explanation, which has been repeated to me by several of the gentry, is that this stone was Fang Fung's Kneeling Stone (Kw'ei shih 跪石), on which he used to kneel at his daily worship.

It may be significant of his attitude towards superstitious worship that, as has been said, in the people's minds there exists a close parallel between T'ang Fang Kung and T'ang Wen Kung. And it is certainly significant of the high respect in which Fang is held today that he should be so placed alongside of and equal to such a popular idol as Wen Kung; for the latter, canonised as Han Yu, the god of Literature, is one of the supremely great statesmen and scholars of Chinese history. The story is still told in every school how Han Yu, when he heard of the bones of Buddah being carried across China to the Imperial court with superstitious honours, wrote his famous memorial to the throne protesting against such degrading superstition. This memorial is still treasured as one of the finest examples of literary style, but it secured his disgrace and banishment from court. The people see a close parallel between these two upright and able ministers of state, who both suffered unjust dismissal and banishment as the result of the intrigues of court enemies. But it may also enshrine a further truth if Fang Kung was a Christian and suffered, whatever may have been the ostensible reason, because of the intrigues at court of the enemies of his religion.

Having found out what the legend amongst the people was, my next step was to ask the scholars and officials. The first I asked was the headmaster of the government middle school, and I asked him, "Who was this Fang Kung whose stone is in the Park?" He at once wrote down in my note-book the Chinese characters for "Fang Hsuan-lin, 房支給 First Prime Minister under T'ang T'ai-Tsung"

One official and scholar after another gave me the same answer. In fact, up to the spring of 1934, the belief that Fang Kung was Fang Hsuan-lin was all but universal in Hanchow; though now that there has been much discussion about it, and much turning over of history books, it may not be so true.

It is perhaps tempting to make this identification, and to believe that this stone was set up in Hanchow by Fang Hsuan-lin, but we shall see that it cannot be allowed. At this time Dr. D.C. Graham was in Hanchow and he kindly sent for a copy of the Nestorian Tablet rubbing from the University, and as soon as it arrived I found this name on it. Fang Hsuan-lin was the first prime minister of the T'ang dynasty under the Emperor T'ai Tsung, and it was he who was deputed by the Emperor to meet the first Christian missionary Olopen, and to escort him in honour to the capital Ch'ang-an. This was in A.D. 635. That he himself was a Christian seems apparent from a second mention of him which occurs in a contemporaneous MSS note at the end of the Nestorian hymn "Gloria in Excelsis," found by Prof. Pelliot at Tunbuang. He was the head of the powerful T'ang clan, and our Fang Kung was of the same clan, and from the same city of Ch'ang-an, and occupied the same high position in the state; but his date must have been seventy or more years later. He may have been the grandson or great-grandson of Hsuan-lin.

#### A NESTORIAN MONUMENT AT HANCHOW.

The fact that the local tradition insisted on his worship of T'ien Lao-yeh, and that the Christians and others who were not such said that he was a Christian, was not sufficiently satisfying. A further question, "besides these local traditions, have you any more substantial proof that Fang Kung was a Christian?" elicited a surprising answer,

A few li outside the south gate is the Wang Hsiang T'ai temple, and in it is an ancient monumental stone set up by the Ching Chiao (Nestorian Church), which has Fang Kung's name

upon it."

"Have you yourself seen this stone?"

"Yes, many times. The first time was when I was a small The last time was perhaps seven years ago. I used to take church people to see it sometimes. Once I took a Chinese pastor there and after looking at it he said, "This is an old Ching Chiao Pei, (an old monument of the Nestorian church). There is another of the same sort at Hsi-an-Fu. It was a very big stone, but it stood in a very dark corner and the characters were very old and indistinct, so that I never met anyone who had read it."

"But did you not tell other people about it. When foreigners

visited here did you not speak to them about it?"

"Oh, no! Why should I? We did not think much of it. The Ching Chiao were not like our Chi-Tuh-Chiao; they were only a set of heretics."

"Can you take me to see it tomorrow?"

"Why, yes, certainly."

Perhaps this is as good a place as any to indulge in an aside and to say that the name Nestorian is a complete misnomer, being =

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**広姓绕的朋友出** 有味實際。我也不反駁道些語。只好 Newspaper article in the local Hanchow newspaper referring to the Nestorian stone in the Wang Hsiang T'ai temple; confirming the fact of the stone's destruction for bridge-making. It also contained the first information that the earlier name for the temple was "Ching Fu Yuan."



a title of disparagement fastened upon the ancient "church of the east" by its inveterate enemies, the Roman Catholics, in order to make it appear to be an heretical sect by associating it with a name which bears the stigma of heresy. The so-called Nestorian church existed many generations before the time of Nestorius. Its official title then and for many hundreds of years after, was "The Church of the East", in distinction to the church had its headquarters at Constantinople and Rome and which was called the Church of the In the first two centuries the Church of the East had its headquarters at Edessa, after which they were at Ctesiphon in Persia: hence it was often called the Persian religion. It was the most missionary church the world has ever known after the apostolic age, and carried the gospel throughout the whole of Asia, from the end of the 2nd century until the beginning of the 14th, after which came the tragedy of its eclipse and practical disappearance. It has been greatly misrepresented by the inscription on the Nestorian Tablet, which as is now well known gives a very inadequate and adulterated version of what the Nestorian church actually taught even at that time.

We believe that Nestorian Christianity, which took so strong a hold in China at this most critical period of its history, did not just disappear like a river in the sand, but that its influence underlies much of the thought and culture and religion of present-day China and the regions around. Space here will permit of the mention of one phase only of that influence. Mr. Torrance has revealed much of great interest about the Ch'iang people, who in the seventh and eighth centuries occupied a large position in western China. Their religious observances are strikingly reminiscent of the Old Testament. And not of the Old Testament only, for Mr. Torrance tells us that their name for the spirit who comes down at their sacrifices is Ye su, or Ye-dsu. We know that Nestorian influence was strong not only in western China, but in Nepaul and all through Tibet; and I suggest that these religious observances of the Ch'iang people are really a reminiscence of Nestorian teaching.

The next morning my informant and I started off. After leaving the south gate by the ma-lu, we followed this road for about three li until we came in sight of a disappointing building on a rise of ground on the left hand side. "Why,", said my friend, "the temple is different now! It has been cut in two by the building of this road in front of it!" When we entered we found a very small and very new temple, evidently rebuilt only a few years ago, with a few idols recently carried out from the city, and no trace of any ancient monuments. Enquiry on the spot was fruitless. "Oh, yes," they said, "There were three or four old stone inscriptions here some years ago, but when the road was made they were all carried away, and the outer wall was pulled down too, and all the material was used in the construction of the road." We returned home sad and disappointed.

I then set to work to find out what had happened to this stone at the time of the demolition of the temple, and in this enquiry found very valuable assistance in two of the city officials, who, when the importance of the quest was made clear to them, independently went to work and prosecuted a vigorous search. One of them lived on that same road on which the temple was situated, and his local influence and knowledge was most useful. two officials, as has been said, conducted their search independently, neither knowing that the other one was also engaged on the search; but they arrived at identical conclusions, and there can be no doubt that these conclusions are correct. There were three or four stones in the temple at the time of demolition, and they were all carried off and used for the bridging of culverts on the road. The one we are specially interested in, which was described as a very large one five Chinese feet high, and was said to be of the T'ang Dynasty, was too heavy to be carried off, so it was cut into three strips; and owing to a superstition that those who tread upon letters will go blind, the characters on the face were then carefully chiselled off, and the three slabs were then used for bridges.

In the meantime I myself was engaged on the same quest in the course of which I visited one temple after another to which the stone might have been taken for safe custody. In almost every place I met with an identical reply, Yes, a few years ago there were a number of inscribed stones here, but since the new roads have been made all have been carried off to make or repair the bridges. The "Ch'i Hsien Ts'i" temple is said to have been a favourite resort of Duke Fang, but enquiry there brought from the single old priest in charge the reply that half a dozen years ago there had been more than twelve large tablets standing there, "See, this is all that remains here!", but all had been removed. he said, pointing to the broken heading of an old stone. It is no exaggeration to say that more damage has been done to these ancient monuments of China in the seven or eight years since motor roads began to be constructed than in the thousand years Nothing is sacred or precious because of its age or associations in this modern iconoclastic China. In the 50 li between Shihfang and Mienchuh there must be sixty or seventy watercourses which cross the ma-lu; every one of these is bridged over with old monumental stones, and from every stone the lettering has been first chiselled smooth. I would like to take this opportunity to make the plea that interested foreigners and Chinese scholars in every district should compile a complete record of old inscriptions of historical interest, and should then exert every influence to secure that such stones are removed to some public place where they will be properly protected under cover. Otherwise before many more of these destructive years have gone by we shall not have an ancient monument left in the country.

(During this search for the missing stone I found, in a little thatched cottage outside the town, where nobody knew of its exist-

ence, another old stone of great historic interest, which is the subject of our second lecture.)

Is it the Site of an Early Christian Church?

The search, though failing to produce the Nestorian monument, secured other valuable information, however; from people who had known about the stone and seen it gave descriptions. Even now, however, no one has been found who has read the inscription. The stone, they all agree, was a very large and thick one, fully five feet high; it stood against the south wall of the temple in a very dark spot, and for that reason and because of the fact that the characters were in a very damaged condition, no one had attempted to decipher it. The characters on the lower half of the stone were particularly badly damaged, so much so, indeed, that some said nobody could have read them.

What was important, however, was that several people remembered that on the heading of the stone there appeared the following four large characters.

#### 景福故里 Ching Fuh Ku Li.

and that these same four characters appeared also on the "Chao pi" in front of the outer wall of the temple, before it was destroyed. These four characters on the temple wall, however, could not have been ancient, as they were composed with pieces of broken chinaware fastened to the wall with cement. It must have been the reproduction of an earlier inscription.

Now we seemed to be getting somewhere. For the two characters 景福 occur on the Nestorian Tablet with the meaning

"Blessings of Christianity", in the sentence

法流十道 國富元休寺 備白城家股景福 which Prof. Saeki translates: "The Law of the Luminous Religion spread throughout the ten provinces, and the Empire enjoyed great peace and concord. Monasteries were built in many cities, whilst every family enjoyed the great blessings of Salvation."

The two characters **BE** Ku Li, frequently to be seen on memorial archways, mean a man's "native place"; and on such arches are always preceded by the name of some famous man.

The character 景 Ching bright, shining luminous,—was appropriated by the Nestorian church (景致 Ching Chiao) and applied to mean the Christian religion, and occurs many times on the Nestorian stone, always with that meaning attached.

Assuming therefore that there is a Nestorian connection be-

hind it, I should translate the above four characters as

"The Original Home of the Blessings of Christianity". Indeed, I can think of no other possible meaning to that combination of characters. Bishop Song, to whom I wrote asking what translation he would suggest, replied in a letter: "I think 最福故里 means, The Home-land (or, the Native-place, if you like) of the Blessed Christian."

I think it probable therefore that this temple marks the site of an original church built by Duke Fang after he had been appointed Prefect of Hanchow. Much depends upon assertaining the proper interpretation of these four characters.

But things did not stop there; for this led to the subsequent

discovery that an earlier name for the same temple was.

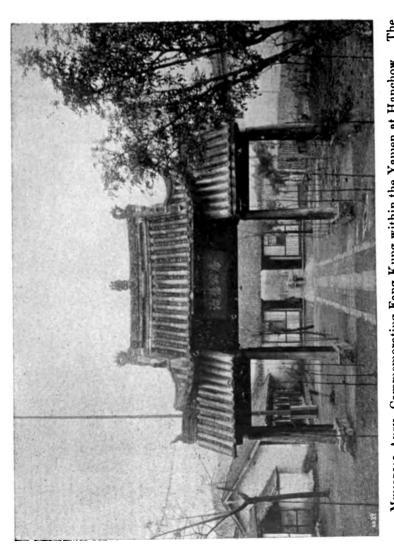
景福院 Ching Fuh Yuan which I think means "The Court of

Christian Blessing."

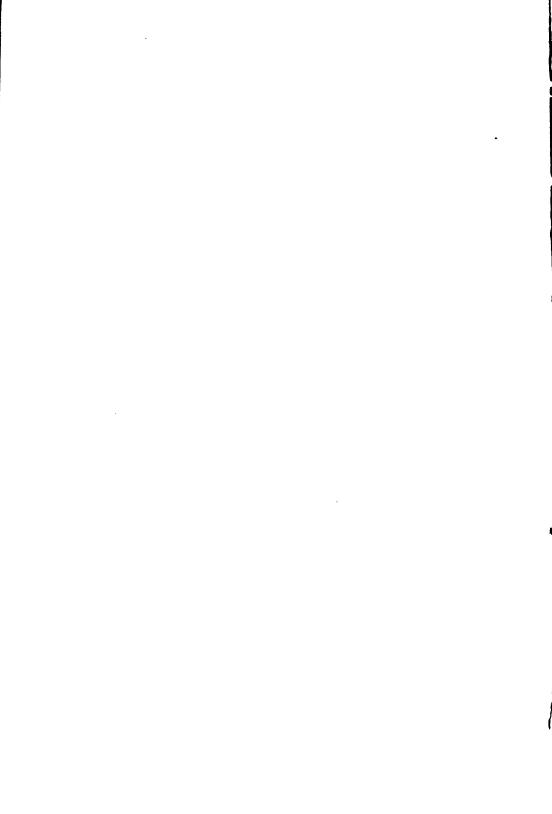
By this time the local newspaper had got interested in the matter, and the illustration annexed is of an article by a reporter who made investigations about the temple. It confirms the statement that the Nestorian stone was cut into slabs, and the characters then cut away, and that the stone was then used for a bridge. This article for the first time brought to my notice this earlier name for the temple. This piece of information may prove of importance, as it appears to provide a new clue to assist us in tracing the development of Nestorianism in China. We already know that at the time Duke Fang lived Christian temples and monasteries existed in many places, as the quotation just given shows. Indeed they seem to have covered China, especially in the west, and we know, as Mr. Liu Li-hsien has shown us, of the existence at this time of two Christian monasteries in Chengtu and of one at Mt. Omei. We also know that they were sometimes known as "Ta Ch'in Si" (Syrian temples), and sometimes as "Po Si Si" (Persian temples), and that in later times after the Christian temples had been suppressed they were frequently converted to Buddhist uses. I think we can now add to the list this new name 景福院. I have already found that close to Tungch'uan there is a market town with a temple, both of which are known by this name, and therefore think it probable that this temple, too, in T'ang days was a Christian church. The same name probably occurs, perhaps hidden under a corrupted form, in other parts of the country, and in each case might provide a valuable clue.\*

The other and present name of this temple is also worthy of note, Wang HSIANG T'AI "Survey the Country Terrace," for legend also connects it with Duke Fang who is said to have often come to this spot to enjoy the view of the country,—"wang hsiang,"—It stands on a low ridge, of which it is the highest point, and were the near trees cut down, would command a wide view over the low

<sup>\*</sup> The two characters 表稿 date, of cource, from before the Nestorians, They occur in the "Odes," with the meaning, Shining Happiness, which the Chinese dictionaries explain as "great happiness." But the Nestorians appropriated this character 景 to the Christian religion, and in accordance with their principle of conforming to native thoughtforms, appropriated the two character 景 accurs many times in the Nestorian inscription, but each time with this technical meaning So Dr. Reichelt calls his Christian Mission to Buddhists, 景風山 Mountain of Christian Influence.



MEMORIAL ARCH. Commemorating Fang Kung within the Yamen at Hanchow. The inscription reads: "Ancient Seat of Government of Duke Fang."



217

ground westwards to where the sun sets behind the great mountains. But we must now leave this temple with its two names, to return to it again in a little while. It has nothing now to interest us, except its site and its names. But we shall consider later why, if Fang Kung built a church anywhere, he would be likely to choose this particular spot for the site.

#### WHO WAS FANG KUNG?

We must now return to the question of who Fang Kung was. The first real light came from a Chinese friend who was a deep student in the T'ang poets, and pointed out to me two poems in Tu Fu's works which referred to Fang Kung at Hanchow. The study of Tu Fu's works with the introductions and commentator's notes made the matter clear, and, full confirmation was obtained from the Hanchow Chih and the T'ang History. We will come later to the romantic friendship which existed between Tu Fu and Fang Kung.

From a close study of these records it appears that we are not dealing with a mere local celebrity. Fung Kung was one of the greatest and most romantic characters in Chinese history, one upon whom the highest poets and scholars of the land lavished their praises, and their lamentations over the unjust treatment meted out to him. We are in truth dealing with a man of unique interest. For it is no exaggeration to say that in Fang Kung Chinese civilisation touches its watershed; his decline from his highest point marks the beginning of the decline of Chinese civilisation from its highest point; from which point its history is one of a steady declension down the slope, right down to the present day. This may seem a tall saying, but before we have finished I think you will agree that the claim is more or less substantiated. I am not claiming that he is the greatest figure in Chinese history; only that he is the beacon-post which marks the crest of the water-shed, the Great Divide.

The main facts of Duke Fang's career can be briefly epitomised: His name was Fang Kuan. (his 'hao' being Ts'i-luh). His father was a high official under the Empress Wu Hou and later rose himself to be prime minister. Fang Kuan from the earliest years of childhood gave promise of unusual aptitude, and even as a boy his character was a model of self-discipline and moral excellence so that all men of discernment prophesied that he would grow up to be the right hand of the throne (為王俊才). When he became a man he passed through one high office after another until he reached the highest position of all, and he served the two Emperors Hsuan Tsung and Su Tsung as Prime Minister.

Here it will help us to refer to the following date-chart.

#### DATE CHART

Emperor	Year Title	Date	Notes.				
太宗		625	Arrival of Alopen at Ch'ang an 635. Ta-Ch'in Monastery at Chengtu. 700?				
支 宗	先天	713					
	開 元	713					
	天寶	742	Fang Kuan Prime Minister. Hsuan Tsung dies at Ch'eng-tu 755.				
肅宗	至 德	756	Battle of Ch'en-T'ao-Hsien 756 Fang kuan				
	乾元	758	Prefect at				
	上元	760	Hanchow				
	實 應	762					
代宗	廣德	763	Fang Kung dies at Paoning				
德宗		780	Nestorian Tablet Erected 781				
武宗	會昌	841					
宣宗		845	Great Persecution of Christianity, &c, Commences. 845				

China at the Time of T'ang Hsuan-Tsung. 唐玄宗

Here we must pause in our story for a moment to consider the state of the China in which Fang Kuan held power as Prime Minister at the court of Ch'ang-An, just before he began his career at Hanchow.

All authorities are agreed that the Tang Dynasty marks the Golden Age of China, when for centuries China was a unified, prosperous, and highly civilised empire, such as then no other portion of the earth could show. At that time the arts of painting poetry, literature, and civil government reached their supreme development. "The T'ang Dynasty is regarded as the Golden Age of art, poetry, and literature." (Ency. Sinica). And all authorities are also agreed that the T'ang Dynasty reached its height when when Hsuan Tsung (A. D. 712 to A. D. 756) occupied the throne, and before the occurrence of the great rebellion. This was the time when Fang Kuan regulated the affairs of the empire as Prime Minister at Ch'ang-An. In those years Chinese military supremacy was established over all the surrounding countries. Samarkand, Bokara, and Tashkend submitted to Chinese rule, and looked to Ch'ang-An for assistance. The territory of the empire was then as large as what is now China proper, though the population was not more than one-tenth of what it now is. Above all, Hsuan Tsung's reign was marked by the most brilliant cultural achievement. The eyes of a modern Chinese would open with amazement if he could get a glimpse of Ch'ang-An as it was then. It was a city of culture and enlightenment to such an extent that it become a model to the world. It was at that time that Japan, captivated by the culture of China, sent over a picked contingent of scholars who took record of all that they saw at Ch'ang-An, and reproduced it in their own land when they returned, so that the whole civilisation of Japan was borrowed complete and entire from the China of that era. Today we may see the very image of what Ch'ang-An looked like by going to Kyoto, for that town was laid out in exact imitation, dimension for dimension, of the Chinese capital. China was then more closely in touch with the outside world than it has ever been, except in our own age. The "land bridge" to Persia and the west was in full operation, and by it a constant intercourse was maintained between China and the western countries. Ch'ang-An in Duke Fang's time must have presented a lively and cosmopolitan appearance, with merchants from many lands in the distant west, and caravans continually starting off westwards laden with loads of silk and spices and percelain. And by this land-bridge western cultures came crowding in, notably Buddhism and Mohammedanism and Christianity, whose foreign teachers and scholars received an open-minded and tolerant welcome. Was not Li-yuan, the founder of the dynasty, himself the off-spring of a Turkish mother? India, too, poured in its contri-It was in those days, from the monk Hsuan Tsang (who made the famous journey to India in 629) onwards, that the many journeys to India by Chinese Buddhists began to be undertaken. So during these years currents of life and thought and culture from all parts of the world were making themselves felt in the T'ang dominions, and by their reaction produced a richer, deep-. per, and more active civilisation there. We must not omit to mention, also, the epochal invention of printing which took place in this same era, and assisted its cultural development. At the court of Hsuan Tsung, in those days before the great rebellion brought the downfall of Fang Kung, art and culture rose to the pinnacle of development. 'The reign of Hsuan Tsung', say Prof. Saeki, 'lasting over 40 years was the most glorious period of all Chinese history, . . . . From A.D. 712 to the end of A.D. 755, China being under the glorious rule of Hsuan Tsung, might be called the Periclean Era of Chinese history.' (pp. 226, 224). The emperor founded the famous academy of literature and music called the Hanlin Yuan, and at his court were the most distinguished poets and painters whom China has known. Amongst the poets were Tu Fu and Li T'ai-po; while Chinese art was represented by its greatest exponent in Wu Tao-tsi.

Such was the brilliant circle which surrounded the Emperor Hsuan Tsung and made his court the most glorious China has ever known. And amongst them, and highest of them all,—for as Prof. Sacki says, "Prime Minister of the Empire was the highest honour that anyone could receive in T'ang China",—himself also eminent as poet and musician, presided Fang Kuan.

#### CHRISTIANITY UNDER HSUAN TSUNG.

It is necessary for our special purpose to say something here about the position occupied by Christianity in the court of the T'ang emperors, especially of Hsuan Tsung. For it was not only an age of culture, it was an age of faith, which partly accounts for it being also the great age of the arts. Buddhism then flourished, as well as Christianity. The T'ang emperors generally showed themselves very friendly towards Christianity: but it was Hsuan Tsung and Su Tsung, especially the former, under both of whom Fang Kung served as prime minister, who outdid all the other emperors in their active patronage of the Nestorians. The Nestorian Tablet, therefore, deals out its most lavish praise to these two For Hsuan Tsung it has indeed been claimed that he was a Christian, but for this there is not sufficient evidence. In Hsuan Tsung's reign Christian temples had already been established not only in the capital but "in all parts of the empire", as the famous Edict of that emperor of date 745 states. Here is the wording of that edict:

The Luminous Religion of Persia was originally started in Ta-Ch'in (Syria). It is long since this religion came to be preached here. Now it is practised by many, spreading throughout the Middle Kingdom. When the first built monasteries we gave them the name of Persia Temple (because of their supposed origin). In order that all men might know the (real and true) origin of what are commonly known as Persia Monasteries in the two capitals (the

221

names) are henceforth to be changed to the Ta-Ch'in monasteries. Let those also which are established in all parts of the empire follow this (example)". (Saeki).

This example does not seem to have been followed, for years after the Nestorian monasteries in Chengtu and elsewhere were still known as Persia temples.

The Prime Minister in the service of such an emperor must at least have been throughly conversant with, and very sympathetic to, the Christian religion which received such favour from his master. As Prof. Sacki says, The Emperor Hsuan Tsung, with his four sons and his nephew, and accompanied by his great ministers (with Fang Kung amongst them), must often have listened to the preaching of the Nestorian missionaries in the magnificent Hsing-Ch'in Palace built by the Emperor for those five princes

Hsuan Tsung with his own hand wrote the inscription over the entrance gate to the Nestorian temple in the capital, and after restoring the church he presented his own portrait and those of the four preceding emperors to be hung on the walls of the church. Here we may quote the Nestorian Tablet in evidence of the exceptional favour with which Hsuan Tsung regarded the Nestorian religion:

"Hsuan Tsung, the Emperor of the Perfect Way, ordered Prince Ning-Kuo and four other imperial princes to go to the Blessed Building (i.e.church) and rebuild the altars. The consecrated beams which had been torn away from their places were thus set up again, and the sacred stones which had been thrown down were replaced. In the beginning of the period T'ien Pao (742 to 755) orders were given to the great-general Kao Li-shih to send faithful portraits of the five emperors and have them placed securely in the monastery with a gift of a hundred pieces of silk. . . . . Thereupon the monastery names composed and written by the emperor himself began to appear on the monastery gates, and the front-tablets to bear the Dragon writing (i.e. the imperial handwriting). . . The gifts of imperial favour are immense like the highest peak of the highest mountains in the south, and the flood of its rich benevolence is as deep as the depth of the eastern sea."

And of his successor the Tablet records:

"The Emperor Su Tsung, the Accomplished and Enlightened, rebuilt the monasteries of the Luminous Religion in Ling-Wu, and four other counties. The great Good Spirit continued to assist him and the happy reign began anew (i.e after the court had been driven out of the capital by the rebel An Luh-shan). Great blessings were given to him and his people and the imperial inheritance was made secure."

At this very time, as we shall see later, when the Emperor Su Tsung was thus engaged at Ling-Wu in Kansu in rebuilding the Christian monasteries, Fang Kung was by his side.

But enough has been given in the above quotations to prove the great and sympathetic interest taken in the Christian religion by the great emperor Hsuan Tsung and by his successor, and we are not claiming too much when we say that his Prime Minister at this time must have been also very sympathetic if no more.

#### An Luh-Shan's Rebellion

We now draw near to the tragic chapter of the story, and there appear on the scene the two famous figures who are called by Prof. Sacki the "Cleopatra and Mark Antony of China",—the court favourite of surpassing beauty Yang Kuci-fei 楊 便元. and the general of surpassing ability An Luh-shan 安徽山. These imperial favourites, celebrated ever since in a thousand plays and dramas, between them brought about the dewnfall of Hsuan Tsung and with him of the T'ang Dynasty, and of the glories of China's golden age. The emperor first fell under the spell of Yang Kuci-fei's beauty, and she gradually obtained a complete mastery over him, so that to satisfy her and her whims and extravagances the emperor embarked upon all manner of expensive projects, resulting in increase of taxes and a rising spirit of resentment among the people, which in its turn provided the opportunity for rebellion to raise its head.

The situation at that time is well summed up for us by the great Tang poet Po Chü-I (白居易) in a few lines from his "Ballad of Enduring Sorrow" (長恨歌), the long poem in which he describes the fate of Yang Kuei-fei and the Emperor:

綏	歌	曼	舞	凝	絲	竹
松	日	君	王	看	不	足
漁	陽	挺	鼓		地	來
淮	破	駕	裳	羽	衣	曲
九	重	拢	闕	煙	廛	生
Ŧ	乘	萬	騎	74	南	行

which may be rendered:

"Slow-circling dance and rythmic song, keeping time to the lute and pipe; The whole day long would the emperor watch, as if he could never tire;

But hark! comes an earth shaking sound,—the roll of wardrums from Yü-yang!

Shattering to fragments that gay tune,—the tune of "The rainbow coloured skirt and the bird's-wing gown"!

Even into the Nine Courts of the royal palace itself come rolling dark clouds of dust,

As chariots and horsemen innumerable march south-westwards to the war."

This rebellion found its leader in the emperor's other favourite, the great general An Luh shan. The Emperor, infatuated with Yang Kuei-fei, relaxed his hold upon the empire, and allowed his favourite general to accumulate more and more power into his hands, by procuring his own appointment as Governor-General (chieh tuh-shih 節度便) of one district after another. It was then that the Prime minister Fang Kuan made his famous protest, in which, braving the hostility of An Luh-shan and his minions, he warned the emperor of the danger impending, and besought him to bestow these governor-generalships upon the five princes of his own line, and not to give an officer of his court so great a temptation and opportunity to seize the supreme power for himself.

Long afterwards Yang Ch'en, the greatest scholar Szechwan has ever produced, bitterly complained of the injustice of T'ang historians towards Fang Kung, saying that they do not give him credit for this action, which if the emperor had heeded would have saved China, and made Fang the greatest of all Chinese statesmen; but instead they piled reproaches upon him for his subsequent defeat by An Luh shan.

Upon hearing of this public letter to the emperor written by Fang, the rebel An Luh-shan beat his breast and exclaimed, "Alas! My chance of winning the empire has gone!"

But soon after the threatened rebellion occurred, and when An Luh-shan's invading army drew near to the capital the emperor and his court fled, the princes going to Kansu to raise troops, while the emperor himself, accompanied by the Prime Minister Fang, came to Szechwan. Here at Chengtu the next year, 756, brokenhearted by the turn of events, the Emperor Hsuan Tsung died. (Saeki.p. 231).

Before he died however he despatched Duke Fang to Kunsu with an Imperial Mandate, to place the prince named as heir-apparent (who was not the eldest son) upon the throne under the reigning title of Su-Tsung. In pursuance of this mission Duke Fang left the dying emperor at Chengtu and proceded to Kansu where he found Su-Tsung at Ling-Wu. So says the "Hanchow Chih" and also the "Tang Shu". And here we find a strong,—all the stronger because incidental,—proof of the authenticity of the Nestorian Tablet. This fact is of importance because the authenticity of this Tablet is still disputed strongly in some quarters, as for instance in the recently published book by Stewart on "Nestorian Missionary Enterprise", where in pp. 173 to 180 he argues against the genuineness of the Tablet.

According to the Tablet Su Tsung was engaged at this very time at Ling-Wu in re-building the Christian monasteries there.\*

<sup>\*</sup>Note: Ling-Wu is the present Lingwufu, now in Shansi. In the earlier reigns of the Tang dynasty it was called Ling Chon, but in the Tien pao period that name was changed to Ling-Wu chün, the very name used both on the Nestorian stone and in the Hanchow Record. This coincidence is proof that the inscription on the stone was not composed in later times.

#### FANG KUNG COMMANDER-IN-CHIEF.

As Prime Minister Fang Kung was also ex-officio commanderin-chief of the Imperial army, and on arrival at Ling-Wu he
supplanted the Prince in the supreme command. The military
situation was desperate and history records how the commanderin-chief advised the emperor to call in the help of the Uighurs, and
how the king of the Uighurs in response sent his son Jacob,—note
the name with its hint of a Christian connection,—at the head of
four thousand selected troops to the aid of the Tang emperor. We
are now treading on the same ground as the Nestorian Tablet, and
it is interesting to note who Fang Kung had associated with him
as subordinate commanders, for two of them appear prominently
on the Nestorian Tablet.

The first of these was the famous general Duke Kuo Tsi-I, 郭子儀 of whom Sacki says, "he was one of the ablest commanders of the T'ang era and held the highest posts during the reigns of Hsuan Tsung, Su Tsung, Tai Tsung, and Teh Tsung." (p. 239). He was a man of foreign extraction and master of many languages. He was given the command of this contingent of 4000 Uighur mercenaries; and it appears that after Fang Kung's downfall he assumed the supreme command. Now it is most interesting from our present point of view that according to Dr. Timothy Richards this man was a Christian. Dr. Richards says—

"The famous general Kuo Tsi-I, the Prince of Fen Yang in Shan-si, became a believer in the Nestorian religion, and he lived A.D. 697--681" ("The China Mission Handbook" for 1896,

quoted by Sacki.)

Associated with him in the military command of the Uighur troops was another general, a still more interesting character, and one who though a great military commander was at the same time a priest and bishop of the Nestorian church, and the man who actually set up this Nestorian Tablet, and is recorded in it is "Our great Benefactor the Priest I-ssa ##." As Prof. A. C. Moule shows ("Christians in China", p. 43) this "Priest I-ssu" is identical with the Izd-buzid who is mentioned in the Syriac part of the inscription. Prof. Moule says, "The credit of discovering that I-ssu is the Chinese form of Izd-buzid who is mentioned in the Syriac inscription below, is due to A. Gueluy, Le Monument Chretien; but little notice has been taken of it until Pelliot published it independently in Toung-pao, 1914." These Syriac words below the Chinese inscription commence as under:

"In the year 1092 of the Greeks (A.D. 781) my Lord Izdbuzid, Priest and country-bishop of Kumdan the metropolis (i.e. Ch'ang-An), son of the late Milis priest from Balk a city of Tahuristan, set up this Monument, the things written on which are the Law of Him our Saviour, and the Preaching of our fathers to the Rulers of the Chinese."

Thus this "Priest I-ssu" was the metropolitan bishop of China, and the actual erector of this Nestorian Tablet, but at the same

time he was a great military and civil official under the emperors Hsuan Tsung and Su Tsung. In addition to being second-incommand of the Uighur contingent he was Lieutenent-Governor-General of the Norther District, in which Ling-Wu was the leading city, and possesed the imposing decorations and honours set forth on the Nestorian stone. This though strange to our conceptions of the priestly and episcopal office was not an unusual state of affairs under the T'ang sovereigns, as in the middle ages in Europe. Under the Emperor Jui Tsung the priest Huai I was also a great military commander. Concerning these two comrades-in-arms of Duke Fang, the Nestorian Tablet records:

"Our great Donor, the Priest I-ssu, who had the title of Kuang-lu-ta-fu, with the decoration-rank of the Gold (signet) and the Purple Robe, and who was also the Lieutenant-Governor-General of the Northern Region, and the Assistant Overseer of the Examination Hall, was honoured with the purple clerical robe.... when the Duke Kuo Tsi-I, a Secretary of State and Viceroy of the Fen-Yang Province was first appointed to the charge of the military operations in the Northern Regions. (i.e. in the region where Ling-Wu was), the Emperor Su Tsung ordered him (1-ssu) to accompany the Duke in his command.... He proved himself to be claw-and-tooth to the Duke, and ear-and-eye to the army." (Saeki. p. 171).

It is to be observed therefore that in his military campaign Duke Fang was closely associated with Nestorian Christian, and even with the chief bishop of the Chinese church.

#### Who were the Uighurs? 回 觸

But who were these Uighur tribes? This is the first introduction of the Tartar tribes into Chinese history, later to acquire such a a sinister prominence in it. It was formerly supposed that these Uighurs were Mohammedans, as they no doubt were, five centuries later when with other Tartar tribes under Genghis and Ogotai they overran Asia from Dresden to Calcutta, and gave Burope a new word for a figure of terror, the word Ogre (Uighur). But modern historical research has shown that at this time, in the middle of the 8th century, these Uighur tribes were Christiaus. In support of this statement we give a few extracts from J. Stewart's "Nestorian Missionary Enterprise":

Turks were all powerful in Eastern Asia and had their capital at Karakoram (p. 137).... The date when the Christian message was first carried to these Turco Tartar tribes is uncertain, but it cannot have been later than the 7th century and may have been considerably earlier (p. 138).... The merit of having carried the gospel of Jesus Christ to the Turco-Tartar tribes belongs entirely to the untiring zeal and the marvellous spiritual activities of the Nestorian Church, the most missionary church that the world has ever seen (139).... Next to the Keraits one of the most im-

portant Christian Turco-Tartar tribes was the Uighurs. They appear to have been converted to Christianity at an early date and to have exerted a strong Christian influence for a very long period. Even in Rubruck's day (circa 1250) there were still Nestorians in all their town (148) . . . . Rubruck speake of the Uighurs as Christians of the sect of the Nestorians. Dr. Mingana is of opinion that the majority of the Uighurs and also of the Keraits were Christians (151)."

But contemporary confirmation of the fact that these Uighurs were Nestorian Christians comes from a document that has only recently been translated by Dr. Mingana of the John Rylands Library, Manchester. It is a letter written by a bishop, somwhere between the years A.D. 730 and A.D. 762 (i.e. in the very period with which we are concerned), describing these Turco-Tartar Christians of which the Uighurs formed the most powerful tribe. As will be seen, at that time they were anything but Ogres. Says the bishop:

"These Christian Turks eat meat and drink milk. All their habits are clean and their beliefs orthodox". He then goes on to say that they wrote and read the books of the Old and New Testaments in Syriac only, but in their gatherings they translate the Syriac scriptures into the Turkish language, "that all the congregation may understand what is read" These Christian Turks, he says, "are true believers and God-fearing folk."

To this we may add that the discovery of Uighur documents of this period in the famous Tunhuang cave proves that their written language was not only Syriac, but that Estrangelo-Syriac in which part of the Nestorian stone inscription is written. They were in fact the first central Asiatic tribe to receive the Gospel and a written language from the Nestorian missionaries from Persia. The Priest I-ssu was therefore perfectly familiar with their language and that is no doubt the reason why he was appointed to the command of this Uighur contingent under General Kuo Tsi-I.

Here if our imagination might be allowed a little play we might suggest a theory about the Uighurs and why they were called from their tents on the northern plains to come to the help of the sorely-pressed Chinese Imperial family. We suggest, then, that Fang Kung, as a highly-placed Christian in the Imperial service was on intimate terms with the bishop in Ch'ang-An, this Priest I-ssu; and that Priest I-ssu on his side was very intimate with these hardy Christian warrior tribes, who may quite likely have been under his own jurisdiction, and was familiar with their superb fighting qualities; and that in the hour of need the bishop suggested to the Prime Minister that they should be invited to supply a contingent of picked troops.

However that may be, the main inference is unavoidable, that before Fang Kung came to Hanchow he had been surrounded by Christians his chief officers, and his best fighting troops were Christians.

#### FANG KUNG'S DEFEAT AT CH'EN T'AO-HSIEH.

On assuming command Fang Kung divided his troops into three armies, northern, southern, and central, and himself took command of the vanguard of the central army. On his first engagement with the rebel An Luh-shan, however, he met with a reverse. He then determined on a campaign of caution, watching for the moment when by carelessness or over-confidence the enemy would lay himself open to attack at a weak point. In this however he was over-ruled by the civilian Inspector-of-Troops, the eunuch Hsin Yen-en, who urged him to a speedy decision. Fang then brought up his unused southern army and attacked again. He made use of the old-fashioned tactics of a shock attack by war-chariots. His astute opponent countered this, however, by providing huge quantities of dry straw, which being set alight, and aided by a heavy wind, covered his front with a zone of fire, which caused Fang Kung's chariot horses to stampede in confusion. The result was total defeat, so that of the Imperial army of 40,000 men only some two or three thousand were left to him. This disastrous battle was fought at Ch'en T'ao-hsieh in Shansi (陳 瀟 對). marked the beginning of the end of the T'ang Dynasty and of the days of China's glory; though eventually the rebel and usurper was brought to submission, it was not until after a long and bitter struggle during which it is said that population of China was diminished by one half.

We are justified, therefore, in saying that Fang Kung's defeat by An Iuh shan at Ch'en T'ao-hsich marks the culminating point in China's history; it is the watershed, the Great Divide, from which culminating point Chinese history begins to slope downwards.

This fatal defeat afforded the court enemies of Fang Kung their opportunity to engineer his downfall, and the following spring he was dismissed from his post and degraded to the office of Prefect (刺史) of Hanchow. The charge against him are preserved for us in the writings of Tu Fu and Yang Ch'en and other literary men who championed his cause and indignantly protested against the injustice done to a great man. Two charges in particular were preferred against him. In the first instance his enemies worked upon the jealousies of the new emperor. At first the latter had yielded without question to Fang Kung's desire to assume the supreme command, but now the Duke's enemies brought forward the accusation that in displacing the Prince he had been actuated by false pride and ambition; and eventually Su Tsung accepted this accusation. The other charger charge preferred against him was of a more intimate nature. Fang Kung was a great lover of music, and no mean performer on the guitar himself, and he had given refuge in his household to an unfortunate musician named Tong Tin-lan, who was decrepted and poor and mentally weak, but was a famous performer upon that instrument. This man, presuming upon his patron's power and influence, committed some fault for which Fang Kung was blamed. The Emperor required Fang Kung to abandon the musician; but as Tu Fu said in his memorial to the Emperor, Duke Fang placed sacred value upon the obligations of friendship, he pointed out that the musician was old and weak and without resources, and moreover was not fully responsible for his actions; and rather than abandon the unfortunate musician he took all the blame of his actions upon himself. This has become a famous incident in Chinese literature and is the subject of several poems from Tu Fu onwards.

#### FANG KUNG AND TU FU.

While Fang Kung retired in obedience to the imperial mandate to take over the governorship of Hanchow, the poet Tu Fu took up the cudgels on his behalf against the Emperor himself. It is now time to speak of the romantic relationship which existed between these two great men, for the friendship between Fang Kung and Tu Fu is one of the most romantic friendships in Chinese history.

This friendship commenced in youth, when each wore the cotton gown, that is, before either had attained to the silken robes of official position. From this circumstance comes the term which has passed into a familiar expression with Chinese writers who wish to describe an intimate fellowship. "cotton robe friends". In the introductory essay to the collected edition of Tu Fu's poems. Sung Ch'i makes use of the phrase, "he was an old friend of Fang Kuan, since the time they both were cotton clothes' (布衣交). At the time of Fang's defeat Tu Fu was serving Su Tsung as Left Censor (Tso Shih I 左拾遺) and he took advantage of his office to send a singularly strongly-worded memorial of protest to the Emperor. In this Memorial he did not scruple to say bluntly, "For a small offence you should not dismiss a great official". This bluntness of speech excited the Emperor's wrath and he ordered the poet to be brought to trial. But the then prime minister Chang Hao replied, "If Tu Fu is punished, in future no other Censor will dare to open his mouth!"; and the Emperor thereupon released Tu Fu and pardoned him. But the poet was not yet finished with, and he immediately returned to the charge in another bold Memorial, of which the ostensible purpose was to thank the Emperor for his elemency; but in it, with even greater andacity, he again rebuked the Emperor for his injustice. As it is concerned with two such great men it is worth transcribing part of this second Memorial in the words in which Sung Ch'i records it:

"Tu Fu thanked the Emperor for his elemency, and went on to say, Fang Kuan is himself the son of a Prime Minister, and even when he was a boy he showed rigid self-discipline and a devotion to study, and even at that tender age he had the manner of a great minister, and public opinion proclaimed him as having such ability as would fit him to bear the burden of public office. And that early promise was fulfilled, for did not you, O Emperor, appoint him your Prime Minister? I bear him witness how entirely

he has devoted himself to the Emperor's cares. The uprightness of his moral character is well seen in his outward appearance. His resentment, however, is easily aroused by rude and unjust treat-He loves also to play upon the guitar, and had given refuge in his house to the musician Tong T'in lan, who was poor and ill and confused in his mind; and this man presumed upon his patron's influence to do wrong. Nevertheless, Fang Kuan sets such value upon the obligations of friendship that he was willing to take the blame of this man's guilt upon himself. I, Tu Fu, lamedt that Fang's reputation has not come to its proper fruition, that his ambition has been so cut short! I hope you, O Emperor, will forget the trivial offence and will again make use of his great abilities. Therefore I, Tu Fu, even at the peril of death, do herewith extel and narrate Duke Fang, abilities. So bitterly do I feel, indeed, that I had arrived almost at the point of giving way to anger, and deliberately committing offence against the person of the Emperor, and disrespecting the royal wish! But I hope you, the Emperor, will pardon the hundred death-deserving offences of your servant and will allow me still to live (lit: will give me back my bones); in which case not only I myself will render thanks, but the whole country will rejoice with me!"

Sung Ch'i goes on to record that though the Emperor pardoned the poet for presenting this second memorial, he never received him into favour again. We therefore next find the poet at Chengtu, and a constant visitor to Fang Kuan while the latter was living at After eight years at Hanchow, apparently as the result of Tu Fu's persistent championship, Fang Kuan was recalled to court, and appointed Chief of the Board of Punishment. Several of Tu Fu's poems refer to this recall of his friend the ex-Prime Minister from Hanchow to the capital. As these poems show, in the spring of the year A. D.763 the two friends went for a last boating party together on Fang Kung's famous West Lake at Hanchow. In the autumn of that same year Fang Kung set out to return to Ch'ang-An, but on reaching Paoning (日中) he was taken ill and died there. Therefore that same autumn we find Tu Fu at Paoning pronouncing a "Funeral Elegy" at the burial of his friend, an oration which is to be found in his collected works. One of his last poems is a "Lament" over the uncared-for grave of Fang Kuan at Paoning.

### YANG CHUANG-YUAN'S TESTIMONY 褐狀元

Before we come to speak of Fang Kung's life at Hanchow we may record the very interesting testimony to the character and achievements of the Duke, and to the value placed upon this same FANG KUNG STONE over 400 years ago, by Yang Ch'en. 楊慎 This Yang Ch'en, or Yang Chuang-yuan, of Sintu, is well-known as the greatest scholar Szechwan has ever produced. He was tutor to the Emperor Wu Tsung about the year 1520, and was one o

the two "Chuang-yuan" in the history of Szechwan ("Chuang-yuan" was the title of the scholar who took the first place in the highest examination in the land). The palace where he lived, with its magnificent grounds, has been kept up ever since his day at the public expense as a park in memory of him, and is now the famous Cinnemon Garden (Kuei Hu 桂湖) at Sintu

In his first essay he complains bitterly against the treatmentmeted out to Fang Kung by historians. We give extracts:

Si K'ung-t'u (司空圖 a famous T'ang poet A. D. 892) says in his poem on Fang Kuan:

## 物望傾心外纤维破躁頻

Wu wang ch'uin sin chiu chien ch'u p'o tan p'in

("Fang Kung's reputation is such that for a long period the people's hearts have gone out to him. Therefore the Arch-traitor,—An Luh-shan,—frequently lost his courage.")

The true explanation of this couplet is as follows: In the middle of the T'ien Pao Period Fang Kuan issued a public letter to the Emperor asking him to place out the five princes as Governor-Generals. An Luh-shan on hearing of this mandate for the partitioning out of these districts, beat upon his breast and sighed, exclaiming. "Alas, now I cannot win the Empire!" This plan was formulated by Fang Kuan, who thus placed the whole nation in a debt of gratitude to him. This is the explanation of the statement that the arch-traitor lost his courage.

And again, Tu Tzu-mei (Tu Fu) in his "Funeral Dirge over

Fang Kung'', says

一概與主後 I teh hsing wang hou: "With one single wise sentence he raised up the kingdom," where the same incident is also referred to. Nevertheless, because he sustained defeat at Ch'en T'ao hsieh, the "Tang History" pays no regard to all his great deeds,—what a pitiable thing is this! For instance, Yang T'in-ai has composed an historical poem in which he refers to Fang Kung as a "Furuh",—worthless scholar,—and compares him with Wang Yen. (王衍) This criticism is altogether too severe. For this reason, I, Yang Ch'en, recommend the writings of Tu Lin (Tu Fu) and Si K'ung, these two poets, as those who have set forth the true state of affairs about Fang Kung, which are not as well known as they should be.

After he was degraded and sent to Hanchow he proved himself a most exemplary governor. Those T'ang poets who wrote their poems in honour of his Fang Kuan's Lake all extolled the excellence of his character. So much have they written that it is impossible to set it all down here." (See addenda: A).

The other extract which we must quote from Yang Ch'en is from an essay written in the most polished classical style, to celebrate the occasion of the opening of a Pavilion built to cover over this Fang Kung Stone;—may we note, in passing, with what latter with scrupulous care and respect, he continues:

After Fang Ts'i-luh who in the T'ang Dynasty was "Master of the Heir-Apparent's Guests", and Chief of the Board of Rites, was dismissed from his office of Prime Minister, he became Prefect of Hanchow. He excavated a great Lake, which people call Fang Kuan's Lake, and the fame of his benevolent government spread on every side. After a long time he was again recalled into the Emperor's service to become Chief of the Board of Punishment. After he had gone the people of Hanchow wishing to keep his memory alive, set up this Stone, and called it FANG KUNG SHIH (n.b. an earlier account states that the Stone was set up by Fang Kung himself, the people afterwards consecrating it to his memory). The Stone is inside the Yamen, and after a number of years might For that reason the Hanchow Prefect Shen K'uei, in his admiration of the goodness of Duke Fang, and planning to bind the recollection of the people always to him, has now built a Pavilion to cover the Stone, so as to prevent the sun and wind from pealing and cracking it and the moss and lichen from corroding it; so that all new in-coming officials may be taught to aspire towards the continuance (of his principles of government), and to regard him as in the very highest degree their exemplar and object of esteem. When this Pavilion was completed the Prefect wrote to me an invitation, saving, Please write a word or two to record the event.

Duke Fang was a famous minister in the T'ang Dynasty. (in such reputation was he held that) when the people used a surname with the affix "Kung" and no "min-tsi" to identify the man,—that was the case with Fang Kung only. T'ang historians extol the excellency of his character and of his abilities, which were such as to raise him to be 有王体才 the Emperor's trusted helper; and they relate how he stirred himself up to increase more and more in loyalty and rightcousness, and how with a few words he brought the Emperor to a right understanding of the (dangerous) situation.

Then again Liu Tzi-heo (柳子里) gives him great praise, calling him 'Hsuan Tsung's Prime Minister who merited the praise and gratitude of the whole nation', and saying of him that all the people praised his stability of character; and also that as Su Tsung's Prime Minister he trained the people in the understanding of the principles of government, and that all the country beheld his character with admiration.

In such a manner was he exalted by the public writers. But alas, slanderous men spoke idle words about him, and to bring

about his downfall induced the Emperor to use him in a manner not adapted to his natural gifts, (i.e. as military commander), with the result that he was defeated at Ch'en T'ao-hsieh; and most men today make use of this fact to depreciate him. But the truth of the matter is that the eunuch Hsin, the civilian Inspector of troops, urged him to give battle, and the responsibility must be laid upon the eunuch. Compare the defeat of Hsun-Lin-Fu at Mi, and of Kuo Tsi-I at Hsiang-Chow, unluckily very similar. In after years Chu Fu-Tsi discussed this defeat of Fang Kung and lamented And Tu Fu, too, came to the rescue (of his reputation). If his quietly efficient conducting of the national affairs in the Imperial court, at the time when the T'ang Dynasty was at its most flourishing period, was at least on a level with that of Chang, Han, and other famous Prime Ministers, it must be evident that when he came to manage the affairs of a mere city (instead of the whole Empire), though in doing so he has left a name for a hundred generations, he was but using a small remnant of his ability.

The erection of this Stone (the Fang Kung Shih) cannot indeed be of much advantage to the Duke's memory. The Stone has upon it no inscription by the Duke himself, nor inscribed characters of his period. But though the town has changed its name more than once, and the city officials have been changed many times, yet (he has remained enshrined in the people's memory) noble and upright, for seven hundred years. Men know it as "Fang Kung's Stone", but not because it has an inscription or has not an inscription. And now I have been asked to add my few appropriate but wholly

unnecessary words! Long ago Tu Yu sank a stone at Hsiang T'an, being anxious to secure that his name be remembered after his death for a long period. But the river, (where he sank it), has not become a mountain crest, (as he expected), and the stone itself has crumbled But on the other hand, on the top of Mount Shan there is a stone which can cause the beholder to shed tears and to praise the man of whom it speaks, unto this day. All of which shows that a person's true fame is carried by his character, not by inanimate objects; and that the influence a good man exerts upon future generations lies in the love he has bequeathed to them; it does not lie in a Stone! From the foregoing we may see that the people of Hanchow remember Fang Kung in fact because of Fang Kung's Lake, which will endure for ever, and it is not necessary to rely upon such a (perishing) memorial as this Stone. The men of Hanchow, as I have said, still love him, and set his uprightness of character on the highest plane; from whence it appears that the people's hearts are easily moved to respond to (a rulers' good example) and that the benefaction of a good man endures for many ages.

Now Prefect Shen has set to work, more than an ordinary man would, to give honour to this great man; and all the matters

233

mentioned above make it fit that an inscription should be recorded; therefore at the beginning of this Stone (i.e. a second stone on which this essay was engraved, but which is now lost, I have recorded the matters concerning Duke Fang; and now inscribe the year and month at the end. \*(See addenda B.)

#### Untrustworthiness of Historical Records.

The foregoing extracts are enough to show that in his lifetime and for at least seven hundred years afterwards Fang Kung was honoured by the most illustrious scholars and writers of China as one of the greatest men of the T'ang Dynasty. If they were not enough we have many other similar testimonies which space forbids us to use. If we go on and ask why, in spite of this, he is now so little known, the answer is to be found in the wholly untrustworthy state of the Chinese historical records. The fact that he fell into imperial disfavour would be enough to ensure his disparagment at the hands of the court writers. And many other examples show that if he were indeed a Christian we must not expect that fact to come to light in any of the book records concerning him, for after the suppression of Christianity in A.D. 845, and again more severely still under the Mings, every mention of it was taboo.

"It is evident," says Stewart in "Nestorian Missionary Enterprise", "that a large and influential body of Christians were resident in China in the year 780, and it appears to be almost equally certain that Christianity was then, and had been for at least some generations previously, either the dominant religion of the state, or that it occupied a very important position therein, and yet not a word of this is to be found in any Chinese record. It is admitted even by Kircher that had it not been for the discovery of the Monument no trace would have remained of the previous existence of this branch of the Nestorian church, the absence of all authentic records of the past history of China being so complete. If the framers of the boasted records which now pass for the ancient annals of China had had any conception that a Christian church once flourished in that empire, they might indeed have been expected to misrepresent the nature of the religion it taught and the conduct of its members but they could not have suppressed all

<sup>\*</sup>Since writing the above I have received the copy of an inscription on a stone in Yuan Chow 實州 Kiangsi, enlogising Fang Kuan. The inscription is by the essayist Liu Tsung Yuan 研宗元 (the Liu Tsi Heo 椰子厚) mentioned by Yang Ch'en above.

The inscription, after much eulogy of Fang Kung, goes on to say: "Amongst the great ministers of the Tang Dynasty who were worthy to bear the title Duke, the most illustrious was Fang Kung. Fang Kung served Hsuan Tsung as Prime Minister. He also laboured in Szechwan..."

<sup>(</sup>廣之大臣以姓配公最著者日房公房公相 玄宗有勞於蜀)

mention of the important changes which must have taken place when this religion enjoyed the favour of Chinese sovereigns, and still more so afterwards when it was wholly subverted and extirpated from their country." (p. 184).

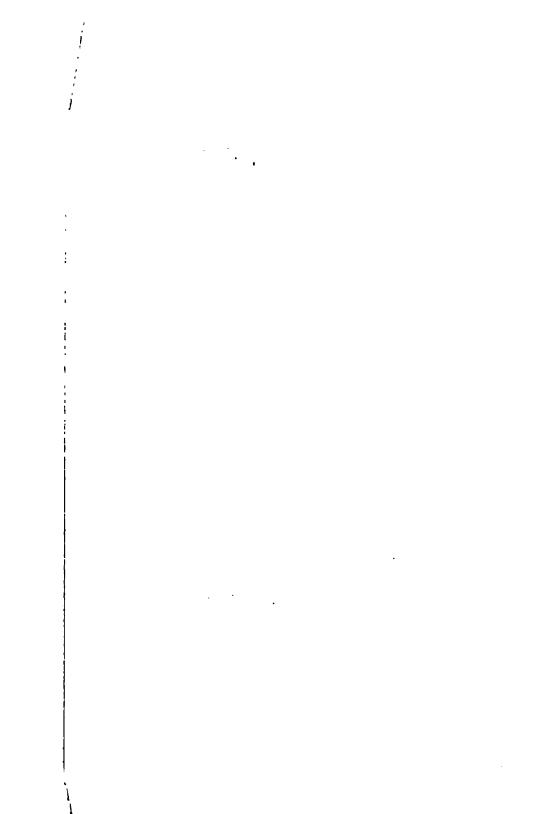
We may add that most unsatisfactory and untrustworthy of all are the local records, such as the "Hanchow Chih". This will often devote four or five pages to the building of a small foot-bridge which glorified the contemporary mandarin, and pass over without any record at all political events of the utmost importance which occurred in the district at the same time.

#### FANG KUNG AT HANCHOW.

The time has now come for us to consider Fang Kung at Hanchow. In these days the district was called Hanchow, as it is now, although what is now the city of Hanchow was known as Lohhsien. In was a much more important place than it has since become, for it, was a "Chi Ti Chow" (倉隸州) and it exercised governing powers over the five "hsien-fen" (縣分) of Loh-hsien, Tehyang, Shihfang, Mienchu, and Kintang.

Beside being a lover of poetry and music Fang Kung was equally a lover of lakes and gardens, and research shows that in his days Hanchow must have presented the appearance of a delightful garden city. The main city lay a little to the north of the present one, the main street of the Han and T'ang city being still traceable in the long road walled on each side, which is called the "Wu Li Hang", but which is now no more than a country lane. Beyond this, to the south and west, covering the site of the present city were the spacious houses and gardens of the gentry; and round it all was thrown a high earthern rampart. But the glory of the city was the famous "West Lake" which Fang constructed beyond the west gate, and which we must describe in a minute.

It is difficult for us who live in the drab and sordid towns of present-day Szechwan, amidst the intensively-cultivated market gardens from which fifty million people snatch a precarious existence, not to under-estimate the degree of civilization and comfort attained here in the days of the T'angs. It was in truth China's golden age, and not least so in Szechwan. The whole country had a population, according to the census of 726 of, 41,500,000 persons; and the whole of what is now Szechwan could not have contained more than about two million. There was land enough and to spare for everyone, land rendered incredibly fertile by the wonderful irrigation system executed by Li Pin, one of the world's greatest irrigation engineers. Where the land was not cultivated forests covered the surface and provided free timber and game for the peasantry and sport for the gentry. These forests, abounding in game, made Szechwan the sporting paradise of China, so that the great Emperors, including T'ai Tsung himself, loved to make the long journey to Szechwan to enjoy a game-hunting holiday.





The roads were wide and well paved, so that two-horsed carriages could drive two or three abreast, drawn by the powerful and spirited horses which the T'ang artists love to depict, and which can be seen to advantage on many of the bricks unearthed at Hanchow. Elephants, also according to the testimony of these bricks, were a common sight on these roads. Fang Kuan himself used to travel in a five-horse-carriage which caused his friends to give him the appelation of "Wu-ma-chu", five horse carriage.

#### THE FAMOUS "WEST LAKE"

We have already mentioned the "West Lake" of Hanchow which Fang Kung excavated during the years he was Prefect there. This became the most famous resort of lovers of art and poetry in Szechwan, and is celebrated in a score of poems by the most noted poets of China. Many accounts describe it as of "several hundred Ch'uin' ' in area, (each ch'uin being one hundred Chinese acres. Commencing outside the West gate it wound a sinuous course eastwards (i.e towards the south gate), around hundreds of small and large islands and through bamboo groves, and all along its banks Fang Kung had built graceful buildings," pavilions, arbours, pleasure-halls, and terraces", as he himself describes them in one of his poems. The commencement of the Lake was probably at the place called the Hui Lung Si (週龍寺), where on the inner side of the entrance gate of the temple is an inscription with four large characters 定散房湖 ts'ai ch'e Fang Fu, "ornamental clearwater lake of Fang Kung". This Lake was the scene of the jovial boating parties in which Fang Kung delighted to entertain his friends, prominent amongst whom were Tu Fu and another of the very greatest of the T'ang poets, Kao Shih, who at that time was Fang's neighbour, being Prefect of the city of P'en-hsien. lake was filled in and turned into rice-fields in the time of the Song dynasty Emperor Hsi Ning (監擊) about the year A. D. 1068.

I have a collection of many poems on Fang Kung's Lake, many of then being by the greatest poets of China, but here we have space for one only, a lovely poem by Fang Kung himself, apparently on the occasion of the first opening of the Lake:

# "A PICNIC ON THE WEST LAKE," (See addenda C.)

- Down from the higher slopes flows the stream, twisting and turning in sharp curves,
   Where beyond the city walls was once a barren waste.
- 2. As the sluice is thrown open, the waters come rushing through, a mighty volume of water!
- See! It becomes a great Lake, with deep pools and islands.3. At intervals along the winding banks I have erected shelters, Places where one may come and dwell, in the midst of the waters.

- - 4. Here in the hot days of summer, the heat will not rise like Open on all sides, the heat would soon be dissipated.
  - 5. My friends will come here from a distance of a thousand li, To this country of him they call "five horse carriage".
- 6. When the moon rises we will embark on our boats, And when the wind blows we will let the sail take us wherever we please to go.
- 7. With uplifted arm I can point out the distant bank of the
  - But to arrive there, that is a much more lengthy matter, so many are the windings of the stream!
- 8. Nevertheless, these windings make it so much the more beautiful, (and what need of hurry?), in the quiet of the evening there is time and to spare for intimate intercourse of friends.
- 9. In the disorders of this unhappy time my heart is far from
  - But for a short while, in the peace of this place, that sorrow is banished.
- 10. Would that my friends and I could continue thus to converse together for many a long day;

So would my grief be all the more thoroughly driven away!

(Other poems on the Lake are given in the addenda.)

The old maps show an arm of the Lake running northwards and extending within the lines of the present city walls to within a few feet of the entrance of the Yamen. A portion of this arm was cut off when the walls were extended and rebult in brick in the 16th century, and remained within, the walls as a deep pool, which was still called "Fang Hu" Fang's Lake. The writer saw this pool in the process of being filled in during the present summer, 1934, and this was the last vestige of the famous Lake, except for some deep irrigation ponds outside the west gate which probably were the centre of it. This arm of the Lake which extended within the city to the entrance of Fang Kung's palace, was obviously created for the conveneince of himself and his guests as a point of embarkation.

### THE "WANG HSIANG T'AI" TEMPLE 望鄉臺

Let us now try to reconstruct one of the famous boat-parties in which Fang Kung and his literary friends delighted. They will embark at the jetty at the end of that arm of the Lake which terminates at the Duke's palace. They will embark towards the end of the afternoon, for according to the poems they will be returning in the moonlight; and will proceed leisurely along the winding course of the Lake eastwards, until at last they reach the point where the land rises suddenly in a high bank or ridge outside the south gate, which bank must have formed the eastern boundary of the Lake. There they will disembark and ascend the bank in time to enjoy the magnificent spectacle of the evening sun setting behind the western mountains and throwing a path of glory over the waters of the lake. Here they will sit and enjoy the music of guitar players in which the Duke had so great a delight. At this eastern extremity there will certainly be one of those "T'ai", or stone terraces with a low pavilion, of which the poems so often speak; and in all probability this one at the point of disembarkation at the eastern extremity must have been the most important of all the numerous terraces, pavilions, pleasure-houses, and arbours, etc., so frequently mentioned.

I think it is as certain as any conjecture can be that at this point on the high bank which formed the eastern terminus of the lake there must have been a terrace or pavilion from which the Duke and his friends could "survey the country" towards the setting sun and the mountains. And is that all? May we not also expect that if he were indeed a Christian he would at this point also erect a place of Christian worship, at which the party would join in worship before re-embarking for the moonlight journey back to the Duke's palace? It is exactly at this point that we find that temple with its double name of Ching Fu Yuan—Temple of Christian Blessing,—and Wang Hsiang T'ai,—"Survey the Country Terrace"; and as we have already said, the local tradition asserts that this was a place to which the great Duke used to come to enjoy the country view and that the name Wang Hsiang T'ai has come down to us from his times.

The temple marks the highest point of the bank or ridge which runs southwards from the south gate, and is roughly marked by the line of the ma-lu to Kintang. At this point there is a sudden change in the topography. From the foot of the temple, to the west all is low-lying ground occupied now by rice-fields. temple is now perhaps twenty or thirty feet higher than the level of the rice fields; but while the temple stands on the original ground level, the level of the rice-fields must have been raised century by century by the annual deposit of silt, and must now stand a good twenty feet above the average level of that ground in Fang Kung's This low ground must at that time have been filled with the waters of the lake. To the east of the temple all is high dry land, on which this year I watched ancient Han graves being opened, proving that the ground level had not altered to any appreciable It seems clear, therefore, that this ridge must have formed extent. the eastern bank of the take with the temple marking the site at the highest point where Duke Fang built his most imposing terrace to form the stately terminal of his lake, and where he also placed his church. It is possible that an air photograph would reveal the lines of the original banks of the ancient lake, and settle this point.

At this point we take leave of Duke Fang. It is a pleasant picture which we have been able to conjure up, rich in suggestions of a highly civilized and cultured manner of existence, such as could not be paralleled elsewhere in those early days. In England it will be still another thirty years before the first long-boats of the Danish pirates will land at Dorsetshire; it will be another hundred and thirty years before the half-legendary, half-historic figure of Alfred appears; meanwhile the rude English peasantry in their wattle huts are steadily being evangelised by bands of itinerant monks venturing out from the comparitive safety of isolated Lindisfarne: while in the rest of Europe the ancient civilisation of Rome is being trampled out and obliterated by hordes of Goths and Vandals more savage than the Danish pirates. It is with a feeling of relief, therefore, that we turn to this eastern corner of that some early world and watch Duke Fang, banished indeed, but in his quiet banishment enjoying a rich and cultured life. We see him in the midst of his flower-gardens, and in his boating parties in which he has for company the finest artists and poets of that age of supremely great art and poetry; and we see him, too, at his daily private devotions at the Christian altar which he has built in the centre of his official residence; and at the close of the day leading the worship in the "Temple of Christian Blessing" which he has built looking towards the sunset over the waters of his West Lake.

Lecture II entitled Chang Hsien-chong and the Dark Age, will appear in the next volume of the Journal.

#### Notes:

A. The 15th century inscription on the Fang Kung Chih is subscribed by the contemporary judge and by the "Head Constable and Keeper of the Prison." The site of Duke Fang's ancient "altar" is now a little distance away from the outer wall of the prison. Probably in the 15th century the bounds of the prison were a little more to the east of where they are now, so that this altar and the stone on it came within the prison boundaries, and therefore the stone was under the control of the prison authorities. The peculiar shape of the stone may be explained if we regard it as a fragment of the base of the pillar which is said to have stood on the altar.

B. It someone says that it is remarkable that such an apparently strong Christian movement as that of the Nestorian church in China should have so completely disappeared, we would point out that there is a strong similarity between this work of the Christian church in the Far East and its work at exactly the same time in the Far West. There was no period outside the Apostolic Age when Christianity wears so fair a face and so altogether attractive a dress as it did in the British church of the 8th century. The most spiritually-minded, the most missionary hearted, the most loveable servants of the Lord

who have appeared, anywhere except in the pages of the New Testament itself, were those itinerant preachers from Iona and Lindisfarne who by their patient, unwearied enterprise, so lovingly described in the pages of Bede, brought the light of the Gospel to all the villages of England at the very same time that the zealous-henricd Nestorians were planting their monasteries in Ch'ang-an and Chengtu. Yet all this great work of the British church appears equally to have disappeared without a trace, blotted out by the incursions of the savage Danes who came later and spread fire and sword through England.

Yet those who know declare that deep beneath the surface, but underlying everything, they can still trace in the life and doctrine of the church in England the influence of the warm-hearted evangelists of Lindisfarne. Both the British stream from Lindisfarne and the Roman stream from Canterbury are still traceable in the spiritual life of the Church of England.

So there are those who say that deep under all the culture and religion of China the Nestorian influence can still be traced. Such a stream does not simply disappear in the sand.

#### ADDENDA. A.

## 楊慎論房次律

司空圖詠房琯詩:"物望傾心久奸渠破膽戲."莊云:天寶中琯奏請遺諸王為都統節度, 祿山見分錄記, 撫膺嘆曰:我不得天下矣. 琯建此議, 可以為社稷功. 杜子美议公詩所謂"一體與王後"亦指此事. 唐書因其陳涛斜之敗, 遂沒其善, 可惜也. 楊鐵崖詠史目之為腐儒, 又以王衍比之過矣, 故余舉杜陵司空二詩以闡其幽 房後謫廣淺有政稅, 唐詩人詠房湖者多稱仰之. 今不悉配云.

ADDENDA. B.

## 房公石記

## 楊愼

唐太子賓客禮部尚書房公次律, 能相後為澳州 刺史,浸巨浸,人號為房湖.政擊流聞,未幾復召入為 刑部 尚書. 旣去而州人思之, 所為立石號房公石者 机. 石 在 州 治 内, 歲 久 霪 仆. 知 漢 州 事 盛 君 惠 公 之 賢 而圖所以永係州人之思者,復爲建亭覆之,將以避 風日之剝炙, 苔蘚之 侵蝕, 使機 此而來 宦者 有所 向 往焉. 其崇尚推表之至矣. 亭成寓書於予日, 詩一言 即之. 房公在唐為名臣, 開元天實間以姓配公, 不名 字而可知者, 房其一也. 史贊其德器有王佐才, 以忠 義自然,片言悟主. 柳子厚稱之曰,相元宗有勞於蜀, 人咸服其節;相肅宗作訓於肢,人咸尊其道.其見重 於公議如此.不幸 證人 夢 菲, 用 達 所 長, 致 有 陳 涛 斜 之 敗 世 多 以 此 少 之. 然 究 竟 其 事 則 中 人 促 戰, 贵 有 所歸. 擬之荀 林父於剡郭子儀於相州, 不幸蓋頗同 焉. 至後世朱子追論而惜之,亦有杜甫爲之捄正也. 使當唐全盛時從容廟意間, 所立固當不在張韓器 名宰下 推其刺一州而名百世,亦其赭餘耳.一石之 立, 於公何有. 茲石無公題證, 於當時文刻, 地幾易名, 官獎易姓而屹然七百载,人有知爲房公石者,異不 保於言之有無也 欲復益以厄言,亦賢也已, 昔人有 沈碑湘潭写身後名之處至遠也. 然而江未写陵而 石已泐, 峴首片石, 乃能使見者既 淚而 頌之. 至今. 蓋 有傅在人而不物, 其所威在 遺愛而不 在石也. 由是 觀之, 漢人之思房公, 固當與房湖為無窮. 而亦有不 賴於茲石矣. 然卽州 人愛戴之誠, 可見人心 之易國 與君子之澤之遠. 盛君復有尚賢之 舉出於韓常, 皆 作而可記者也故當其本事於前而志識月於後云

#### ADDENDA. C.

## 房湖既成作 房琯

高流辐坡隅。	城下稲丘坡
决渠信浩邁	潭岛成江湖
結字依迥滯	水中信可居
三伏氣不蒸	四達暑且徂
<b>同人千里 湖</b>	臨國五馬車
月出共晉舟	風生隨所如
學應批極浦	欲悔更盤紆
綠饒多絕致	夜静情有餘
遭亂意不開	即題還實法
安得長陌點	使我爱更除

#### Addenda. D.

Extract from Essay by Ltu Hsu in "Old Tang History", reprinted in "Life of Tu Fu", preface to Tu Fu's collected works:

"In the 15th, year of T'ien Pao, An Luh-shan captured Ch'ang-An. Su Tsung recruited troops at Ling-wu. Tu Fu escaped from the capital at night and went to west Ho, and received Su Tsung at P'en-yuan, and became that prince's Left Censor. When Fang Kuan was still (an undistinguished person) dressed in cotton clothes, he and Tu Fu were friends, Fang Kuan being Prime Minister requested permission to lead the Imperial forces against the rebels and the Emperor granted the request. In the tenth month his army was defeated at Ch'en T'ao-hsieh. The following spring Fang Kuan was dismissed. Tu Fu then sent a Memorial to the Emperor to say that Fang Kuan was a man of ability and ought not to be so dismissed. Su Tsung became angry at this, and degraded Fang Kuan to be Prefect, and degraded Tu Fu to be the staff-officer of the Si-kung of Hua-chow'.

Extract from Essay of Sung Ch'i 宋祁 in "New Tang History", reprinted in Preface to Tu Fu's collected works;

"It happened that when An Luh-shan rebelled and the Emperor fled to Szechuan, Tu Fu escaped to the town named Su-ch'uan in Shansi. When Su Tsung became Emperor, Tu Fu,

#### ADDENDA. E.

### 

'FANG KUNG'S LAKE'', by CHAO PIEN (Sung Dynasty official of Chekiang)

"The whole province of Szechwan has no other such Pleasure Park as this one made by Fang Kung at Kuang-han;

How greatly I regret that Fang and I never met (being separated by centuries,—for our pleasure in lovely gardens is mutual);

If when I return to my Chekiang home, the Emperor's grace is as great to me (as to you),

I will ask him for Mount P'eng-lai, and a Lake like yours!"

## 得房公池鵝

杜 甫

 "TAKING GEESE ON FANG KUNG'S LAKE": by Tu Fu

(On Duke Fang's departure from Hanchow in the spring of A.D. 763)

By the West Lake Pavilion built by the Prime Minister Fang there are a flock of geese;

They are like a white cloud, sleeping on the sand, or swimming near the bank.

As you make your journey towards the Phoenix Pool (the Imperial Palace), you should turn your head and look;

For as the caged geese followed Wang Yu-chun, so do your geese follow me."

## 陪王漢州留杜綿州泛房公西湖

## 杜甫

舊相思追後 關庭分未納 或化導線 使君變息蓋 春池 賞不稀 舟 根 有 光 輝 刀 鳴 膾 棲 飛 液 正 相 依

(Probably at a farewell feast by the Lake on the occasion of Duke Fang's departure in spring A. D. 763.)

"After the ex-Prime Minister had lost the Imperial favour, he used to come frequently to this Lake in spring.

As he has not yet returned (to Ch'ang-An) to take up his duties at the Imperial palace the sailing-boat is brightened by his presence.

(For the parting banquet) the vegetables are nearly cooked, and we can hear the sound of the chopping-knife shredding the meat.

The canopied carriages are standing side by side on the shore, where the water is shallow."

遊 漢 州 西 湖 房公一跌灌兼毁 晚城 鑿湖一百頃 小巷静院穿竹人

陸游

八年淡州為刺史 島嶼曲折三四里 危榭飛樓壓城起

<sup>&</sup>quot;SAILING ON FANG KUNG'S LAKE" by TU FU.

**空漆烟雨媚松楠** 日月苦長身苦閑 向來愛琴雕一癖 畫船載酒凌湖光 数息風流今未泯 願 倒 風 話 老 荗 薏 萬事 不理看 湖水 觀過自足知夫子 想公樂飲千萬觴 西川名醞避鵝黄

"WALKING BY THE WEST LAKE OF HANCHOW:" by LU YU.

Official, and famous poet of the Sung dynasty; banished, like Fang Kung, to Szechwan.

After Fang Kung had fallen, his enemies drew together and slandered him.

For eight years he was Prefect of Hanchow.

Alongside the city wall he excavated a Lake of one hundred ch'üin; (10,000 Chinese acres.)

The water winds round large islands and small islands for three or four li:

By narrow water passages and past quiet halls you pass through bamboo groves;

There are tall arbours and high storeys which surpass in height the city wall.

The misty air, partly like smoke partly like rain, loves the pine-tress (and clings about them.)

The wind and frost cause the bulrushes to wilt and fall.

So the weeks and months go by wearily, and I am tired of idly loitering.

Having nothing better to do, I come and wander by the water of the Lake.

And think how excessive a love Fang Kung had for the music of the lute. (n.b. Fang was dismissed because of his championship of the disgraced lute-player Tong T'in-lan.)

But looking at this your mistake, it enables me to appreciate the goodness of your heart (because it reveals your fidelity to your friend.)

On our gaily painted boat we load the wine, and then put out into the bright reaches of the Lake;

And think of Fang Kung and how he liked to drink a thousand cups (of the Hanchow "goose brown wine.")

And we sigh to think that, though the reputation of Duke Fang is still with us, vet (his wine is no longer with us, for) the famous wines of Szechwan do not now include your "goose-brown "wine!"

The author desires to acknowledge the valuable help rendered him in this investigation by his old friend Mr. Wu Wen-chong.

#### NESTORIANISM IN TIBET.

#### J. H. EDGAR

Du Halde's History of China, Vol. 4, page 158, the edition of A. D. 1736, contain's the following information condensed from the Memoirs of P. Gerbillon:—

"It was these Eluths . . . . . . who conquered in this present age the Kingdom of Thibet and gave it to the Great Lama . . . . . . . Thibet, called indifferently Toubet, Thibet, and Tangout was governed by a king of its own . . . . . . . This prince was formerly very powerful and probably no other than the famous Prester John so celebrated in history . . . . . . "

Further, on page 449, evidently from another source, we are told how this kind had "So great an esteem and love for the Christian Religion that he seriously intended to embrace it." This aroused the jealously of the Grand Lama, and his vigorous complaints eventually caused an insurrection "of Tartarian Princes who after they had entirely defeated the army of this prince in battle put him to death."

Both of the above statements are evidently based on the reports of a Catholic priest who was residing in Lhasa at that time.

# THE ANCIENT YONG (戎) AND POSSIBLE SURVIVALS IN SZECHWAN.

#### J. H. EDGAR.

Our subject is not an easy one. At the very beginning we assume a prehistoric element on the more northern part of the western frontier of China, the origin and fate of which must remain a mystery. Then we have protohistoric migrations from different centres of cognate peoples, who had preceded Yao and Shuen by These fugitives, after forming clans in their new homes, were being constantly modified by conquests, dispersals, reunions, and addition of alien material, and elimination by climate and topography. Later, also, in historical times we read of vigorous, well organized secessions and expulsions from China of more remotely related groups, who, occupying distant centres with fertile soil and genial climate, and far from persecution, by natural increase, absorption of less cultured natives, and malcontents from China, soon exhausted the resources of the new colonies. This necessitated the occupying of other lands and ultimately the formation of many more or less independent governments. But the old process of alliances, conquests, and absorption would continue until, finally, some superman, more vigorous in disposition and favoured by circumstances, would conquer or otherwise force his neighbors into a union that would function on a national scale. This climax fairly well represents Tibet<sup>2</sup> ethnically layers of cognate human material modified by climate and topography as well as by conquests with their quotas of slaves and convicts; peaceful penetration working against the frontier Chinese; and alternate reunions and dispersions. The resulting human strata are so complex in composition, that they are only to be found by a careful analysis of material not always easily accessible to the student. It may be suggested at once that racial purity will not be found, but in sequestered regions where empires meet, groups still exist, where owing to endogamy rigidly enforced, and nonconformity in religion, racial admixture has not taken place on a large scale; or if such danger did exist the alien element has been gradually bred out. It is in the latter groups that we hope to find the names, languages, customs, and physical peculiarities of a In the present essay we are more particularly interested in the Yong stock and its survivals today in the human backwashes of West China.

II The term Yong is, as regards pronunciation, a problem awaiting solution. Now it is read either "Yong" or "Rong," but

what the old sound was is uncertain. We, however, would suspect a French "j" with the suggestion of an initial "r." If so, anything from "Rong through "Zhong or "Zung" or "Sung" to "Yong" would be heard. A study of "Hsiong" in Hsiong Niu<sup>3</sup> might show us how to approximate the old sound. It may be, also, that a variation of the original exists in "Zung Kang" (also "Rung" and "Sung Kang") and Sung P'an. We shall, also, later on, examine the Tibetan term "Rong" in r'Gyal Rong, Rong mi<sup>3</sup> Dra m'G, and the significance of the same word in "the Rong' language." Another line of evidence will deal with the name applied to regions in Tibet, and to peoples and countries south of the Himalayas. In order to do this we shall call in the available witnesses: China, Tibet and the Border Ethnic Groups:—

A. China. In this examination we use the word "Yong" believing it more nearly to represent the original sound than "Rong." That the name had a quasi ethnic significance we have no doubt. Chinese dictionaries and histories, the best evidence available, and to a great extent trustworthy, seem to be clear on this point. We are told "'Yong' was a general name for western peoples." Then, "the unsubdued ethnic groups in the east are Yi;' those in the south 'Man;' in the west 'Ch'iang,' 'Fan,' and 'Yong;' and in the north 'Tih.6'" Again: "The 'Ti' who lived in the west of Szechwan were related to the 'Hsi Yong;' and the 'Ch'iang' were a clan of the same stock." Both the Shu Ching and the Shi Chi's speak of the "Hsi Yong" and "Ti Ch'iang'. But we are informed by other dictionaries that the "Ti' are "Hsi Yong." In Lobscheid's Dictionary, page 1318, under "Four Yi' we have the Western Barbarians recorded as "Ch'iang," "Fan' (and?) or "Yong."

But to what branch of the original trunk did the "Hsi Yong" belong? We are told that Shuen drove the "San Miao" into the San Wei<sup>10</sup> (Tibet). But later the same region is "the realm of all the 'Ch'iang' and 'Yong.' 'Moreover, in the days of Yü it is affirmed that the 'Yong' of the 'Tribute of Yü'' are the Ch'iang hordes of the Min Valley, and both divisions of Tibet."12 But another explanation would demand that the Hsi Ch'iang were driven west from their centre in Hunan. If we consider the "San Miao' as aborigenes, and widely dispersed, both accounts may be true, and the appearance of fugitive Ch'iang in the west of China would then be a reunion of cognate peoples probably modified to some extent by alien material, climate, and topography. In any case, whether racially pure or not, from very early times Chinese historians especially in the SHU CHING use the names Ch'iang and Yong, and in a general way we are in no doubt about their meaning. A few samples culled almost at random from many sources will be of interest to students of frontier ethnography.

In the SHU CHING we learn that the Yong were of seven kinds widely distributed, very powerful, and paying tribute in the days

of Yu. In the T'u K'ao we are told of Ch'in<sup>13</sup> preparing to "exterminate" non-Chinese groups, including the Yong. There is also mention of Hsi Yong records in the histories of Tsin. In the T'ang Dynasty, also, we learn that the scholars of Han "recognized the Gentiles beyond the Western Borders as Hsi Ch'iang and (or) Hsi Yong. Hsuchowfu (Suifu) was Yongchow in the same dynasty; and in the Min Valley about 735 A. D. cities with the name "Yong" attached were being wasted by the T'u Fan armies; and Ch'iang and Hsi Yong were considered ethnically distinct. Some years later a virile group of Hsi Yong were busy in the oasis of Tuen Hwang. The same frequency of names suggestive of Yong activities down the ages is common in Kansu.

B. Tiber. Tibet first had relations with China as a nation early in the T'ang Dynasty. About this time, also, she introduced an alphabet and was in a position to write history—of a kind. This must be remembered as she presents evidence. Her contention is that "Rong" (but not Yong) is a term with a geographical, rather than an ethnical, implication. Assistance may be claimed from the Nine Rong in Minyag; the name Rong Mi Drangu; the Gyal Rong people; and the districts of Nyag Rong, Ts'a Rong, and Rong Yul in Tibet. Apart from the above, foreign countries like Sikkim, Nepaul, and Bhutan, as well as people like the Lepch'as, 16 are all known to Tibetans by some form of the same word. These are all valley regions, and the name simply suggests a farming community distinct from the "ranchers" who occupy the grazing grounds in high altitudes. This is all quite true, but we do not agree that "Rong" in Tibetan is related to the Chinese "Yong;" nor that history will allow us to assume that the latter was originally a topographical term. Indeed, Tibet is not in a position to discuss "Yong" as an ethnical term. Her history, other than the traditional form, began about 650 A.D; that of China 2000 years earlier. Furthermore, the Chinese as historians are moderately reliable; the Tibetans are not. So it will occasion no surprise to the oriental student when we suggest that "Yong," a racial designation, and often pronounced "Rong," became in Tibet of topographical value by the misinterpretation of a homophene. Ask the Tibetan authority "where are the protohistoric Ch'iang and Yong?" He has never heard of them. But if he is carefully examined, he may have his faith shaken in the belief that "Rong," even in Lamaland, has always a topographical significance. For instance, in Sarat Chandra Das' Dictionary under "r'Gyal mo Rong," which is contracted to "r'Gyal Rong," we are told it is "a country on the confines of South East Tibet." Then again under "Ts'a K'o" 17 we have "the name of a place in r'Gyal mo Rong, the mountainous country to the East of Khams and bordering on China." As "r'Gyal mo" probably suggests that these

<sup>\*</sup> From the "Si t'u'i sum r'tags" and "K'Long r'dol g'sung a'bum" respectively.

people are "Rongs" or "Yongs" ruled over by queens, we would not be surprised if in this case there is evidence that is in agreement with the Chinese histories. Indeed, these may be remnants of the old mythical "matriarchal kingdoms." In some of the states composed of the r'Gyal Rong the laiter half of the word is often added for emphasis, as Dampa Rong for Dampa (Rong) State. Another principality is called Zung Kang, Sung Kang, or Rong Kang. This may be the same word again, emphasizing the ethnic value of "Rong" or "Yong."

C. The Native Evidence, is cultural, somatological and linguistic. Apart from being settled farmers with auxiliary flocks and herds, their architectural designs differ from those of the Bodpa in many interesting details not to be explained, as in the case of grouping, by geographic controls. In many regions also, gigantic towers are scattered over the hillsides. These old frontier people, in spite of lamaism, are strikingly litholatrous, and value white\* as a talisman. Moreover, they have customs, superstitions, and objects of worship unknown to their cousins, the more definitely Bodpa element. Their physical measurements will no doubt show that they differ considerably from both the recognized Tibetan type and what might have been a pure proto-historic race. An occasional Armenoid nose and an exceptionally long reach of the arms may be a racial peculiarity modified in less pure regions.

The language known as the "Rong s'ke," or "Rong speech" is definitely non-Tibetan, but closely related to other widely separated linguistic groups. The "Rong s'ke," as such, is spoken in Bawang, Ge Shi Tsa, Dawo, Mao Niu Valley, regions in the Yalung and among at least some, if not all, the clans of the Chiu Rong in lower Mi Nyag. From the table presented below it will be seen that the "Rong s'ke" is only remotely, if at all, related to the Tibetan; but is akin to the r'Gval Rong; and closely allied to the Ch'iang and Mosu or Nashi. Certainly more than topography is required to explain its divergence from the speech of the nomads. In some regions the "Rong s'ke" is probably known as Lo (ng)-ke, which would be the Chinese rendering of "Rong" as a Tibetan word. A like modification is found in "Rongmi Dra m'Go,"\* the native name of Tanpa or Chungku Colony. The "Rong Mi" here are undoubtedly the "Rong people," as the Hor<sup>18</sup> in Hor "Drangu" specifies the Hor group. But to the Chinese the name is usually Ro, Lo, or Ru Mi Drangu. In this connection it is useless to speculate about "Rum," for that means 'Rome," and is still a Tibetan word for Turkey-once a regions for Roman colonies. But "Ru" may be an opproximation of an early sound of Yong or Rong, for the Gyal Rong pronounce and

<sup>\*</sup>In one of Legge's notes in the Sun Ching he mentions the Imperial worship of a white God.

<sup>\*</sup>So Paul Sherab Esq. Locally B'Rang-"a settlement' is favoured.

write the last sound in their name as "Ru." This is interesting for the Ge Ru (r'Gyal Rong), more than any other frontier group render correctly all the alarming combinations in the written Tibetan words. For instance, when confronted with "Brgyad" they successfully render it "Wur Yat." But when it comes to "r'Gyal Rong" they simply pronounce it "Ge Ru." So it is safe to assume that the present name is a Tibetan invention. But in other regions we find indications that the trilled "r" was neither a universal nor even a fundamental sound. The frequency of such sounds as "Zhung," "Hsiung," "Song," "Zung" and "Yong," where "Rong" would fit in, suggests that the true sound was something approximating a French 'i' or Tibetan 'zh," tapering off in different directions to "Yong' and "Rong." This modification may be seen in the table of words given below.

In conclusion it seems that "Hsi Yong" was the most inclusive name for the original people of Tibet, and implies a cognation of Ch'iang, Ti, Tufan, and perhaps other groups, which in a cultureal sense is now known as "Tibetan." We also think the "Rong" of the Bodpa is a geographical term and arose in West China by confusing a homophone of ethnic significance with one capable of a topographical application. We suspect also that the ethnic sense is still retained in some regions of the Kin Ca'wan. However, in this case we prefer the a division of the Hsi Yong.

## Rong Ke and Tibetan Compared

English	Tibetan	Gia Rung	Hokow	Mosu	Bawang	Min Valley
Boot	Lham	Tig tse	Zih	Zah	Zi	(Pa) Chu
Boy	Ba	Ta bu	Zih	Zih	r'Dzi	Chie
Cow	Ва	Ni nge	r'Zha zhi	Ugh	Hsie	Ra tzi
Dog	Ch'i	K'e	Ch'üh	K'uh	K'uh gü	K'ah
Eye	Mig	Ti myeg	M'nieh	Mieh	Mao	Nyia
Goat	Ra	Ki so	Tsă	Taž	Tsÿ	Tsi
Horse	r'Γa.	{ n'Boro { Mo ro	Gee	Ra	r'Yi	Rŏ
House	K'ang pa	Ti chem	Yiş	Gi3	Yo	Chi
Pig	P'ag	P'ag	Vei	Pŏ	<b>V</b> á	l'iă
Sheep	Lug	Ki yo	Y1	Yüš	Yih yí	Tsă (?)
Sky	Nam	Ti mŭ	М5	Mã	Mur'ngai	Mi
Tooth	So	Ti s'we	K'ueh	нз	Hsū	Няй

Notes:—Hokow is at least 400 miles from Weichow in the Min Valley, with Tibetans and Gia Rung in between. The lists three, four, five, six and seven are all probably varieties of the Rong s'Ke which predated the Tu po by centuries. Isolation among aliens will explain the differences easily noted. The Mosu and Min Valley words for "horse" are of interest. In the Chia Rung it is m'Boro or Mo ro, This means we have the Chinese "ma" at one end and the Rong Ke "ro" at the other. The "gee" and "r'Yi" are both modifications of the "R'zhi"—a change that often obviates the rough Tibetan "r."

#### NOTES

- The migration referred to was west of the Tibetan bend of the (粉支木)
  H wang Ho. In the "Tribute of Yu" this was one of the tribute sending
  regions.
- 2. Tibet = 社會 "Fan," first "Fah" was pronounced "Po" later.
- 3. Hsiung in Hsiung Nu may be 西東 (Hsi Yong). Hirst connects Yong with Hun.
- 4. r'Gyal Rong-now Chia Rong (Gia Rong): Native, "Ge Ru."
- 5. Rongmi = the Rong people, generally Ro mi.
- 6. Tih M Barbarians of the North.
- 7. Ti st an ethnic group in the West of China. About 1239 B. C. the Ti Chiang Submitted to Wu Ting.
- 8. The Shī Chi 史記 of Sza Ma Ch'ien.
- 9. The three mythical original divisions of Tibetans (三萬); as well as "The Aborigines of China,"
- 10. Sin wei 玉色. The three regions of Tibet: Khams, Wei, and Tsang.
- 11. 風質 Yū Kong: "The tribute of Yū,"
- 12. Wei and Tsang 會 and 藏.
- 13. The # Ch'in Dynasty: 255-209 B. C.
- 14. The 書朝 Chin Dynasty: 265-419 A D.
- 15. Tuen Hwang: an ancient oasis in North-west Kansu. C/P 西王母
- The Lepchas in Northern India are called "Rongs" and seem to be Mongoloids. See Webster and Deniker.
- 17. Ts'a K'o" is Tsa Ku Lao, near Lifan.
- 18. Hor: a Yuigur group, Northwest of Tatsienlu,
- 19. Tibetan "Brgyad" (pronounced chie) = the cardinal "eight." The Gia Rong render it "wuryat." The Chinese "Pa" and "Pat" are from the same primitive sound.

# A SUSPECTED MANICHEISTIC STRATUM IN LAMAISM.

#### J. H. EDGAR

Because of the fantastic nature of the material, the similar constitution of strata of different origins, and a widespread ignorance of both Buddhism and Manicheism, the self-imposed task of the writer is a difficult one. Hence in order to help towards a better understanding of an interesting, but elusive subject, he will begin by presenting an account of some phases of both systems.

Mancheism, a highly syncretic religion was founded by Mani, who was born about 216 A.D., and crucified and flayed sixty years later. He was a great traveller, and it is claimed that he visited China, probably that part of the empire now known as Eastern Turkestan. The new religion founded by him was a union of the heresies of Marcion and Bardaisan with Persian Magianism. 1 It has been persecuted by heathens, Christians, Moslems, and Confucianists, but seems to have been characterized by a simple worship, and a strict morality. It, to some extent disguised by a Buddhist garb, was known to, and interdicted by, the Chinese Government in the eighth century; and mixed with Buddhism and Nestorian Christianity, flourished until the 12th, or 13th century. Mani's message was: There were two eternal principles, Light and By an unfortunate mixing of the two the universe came into existence, and the freeing of the Light particles from the Dark is salvation, and the work of the agents of Light. Unregulated desire explains the presence of evil: the Dark perceived the scent of something pleasant beyond his region, and desired it [Although] the worship of the Manichees was related to that of some heretical sects its disciples were bound by rules demanding conduct of a pronounced ascetic type. The "Elect" or Priests were required to abstain from wine, meat, property and marriage. The Church, or Order, was divided into Monks and Laymen, at the head of which was the Magister a Pope and successor of Mani, who claimed to be the Paraclete sent by Jesus. Other details fitting in as we proceed will be emphasized as the occasion demands.

Manicheism, a fiercely persecuted religion, gradually spread over much of the known world. Samarkand became a famous centre; it was proscribed in the provinces of China; and it flourished so vigorously in Southern Turkestan that a threat from chiefs in that region was sufficient to insure better treatment for co-religionists in continguous states.<sup>2</sup> The Manicheists there also seem to have

been an aggressive body, for Sachau in his Al-Biruni informs us that "most of the Eastern Turks, of the people of China and Tibet, and some of the Hindus, adhere to Mani's law and doctrine." As regards Tibet and Turkestan (China) the introduction of Manicheism may have been (Yuigur) indirectly due to the Yuigur hordes who, when retreating from the Western Provinces, carried off Manichee missionaries, and officially accepted the religion of Mani.\* The above information, meagre enough it is true, nevertheless permits us to assume the possibility of Manicheism affecting Lamaism at one of its most susceptible periods. So if the old influences have not been entirely obliterated we would expect to find Gods in Heavens of Light, filling the Earth with avatars, who are rays from the parent source, residing in human bodies. We would also expect the latter to be Saviours, Guides, and Light Bearers from the Gods to men who are partly Light and partly Dark. We would also expect a ritual and worship in many ways resembling those surviving in the Gnostic cults of Christianity.

That such resemblances do exist we have no doubt. To what extent such a claim may be justified will be hinted at as we proceed with an examination of the famous invocation Om Mani pad me hum! To begin the discussion we affirm that the formula in question is not Tibetan, nor is it a petition to any Buddha. The words are Sanscrit, and as they stand are: Om: a mystical interjection, the symbol of Vishnu, Shiva and Brahma. precious stone. Padma: the sacred lotus. Hum: a final interjection, apparently of a terrifying kind. The Mani b'ka a'bum traces the formula back to the seventh century. But as the 'authority" may be a product of the fifteenth century we reject it as evidence. 5 A European, however, mentions the invocation in the twelfth century, and as far as serving our purpose is concerned the seventh or eighth century would suit just as well. But if Buddha is not the God addressed, who is? The answer is Spyan But as this information, unrelated, will only mystify the majority of readers a few remarks about this interesting Avatar<sup>6</sup> will not only simplify matters, but suggest important implications. Briefly then, Spyan ras g zigs is a light emanation from Od d'pag med who reigns in the b' Dewa Chan or Paradise of Light. In authodox Lama circles he is the fourth Dhyani Buddha or Amitabha. His emanation, Spyan ras g'zigs, is the vice-gerent of Amitabha, the Saviour of the World, the Patron of Tibet, and Incarnate in the Dalai Lamas.\* The story of his appearance according to Rockhill, is, in effect as follows: Amitabla's mission is to save all creation from the curse of sentient existence. pursuance of this policy he evoked the avatar Spyan ras g'zigs and the Goddess s'Prol ma. The former came as a white light ray

NOTE: S. Couling page 325 - Manichaeism.

<sup>\*</sup> Tibet is the Holy Land of Od d'pag med, as Palestine was of Yahweh.

from his left eye, and the latter as a blue ray from the right. But more specificially: "From the Buddhas' bodies came an unspeakable effulgence whence emanated the great Compassionate One and the six syllabes." His incarnation is detailed as follows: "There came a light out of a lotus pond and he was born in the body: 8 his apparitional person. A mighty glory came from his white body." The sentient Beings are viewed as confined in impregnably walled prisons, but "from Spyan ras g'zigs' body there came six rays of light which reached the six inhabited regions" and set the victims free. (Compare the Manichee "release from sinful Time'' in a rubric.) But the avenues of birth were still open and the Orb could not be empticd. In unadorned language this means that the Rays-"the six mighty ones from out the Light' had failed. But Spyan ras g'zigs in dire agony, as the result of an awful vow, aided by the Buddha returned to the fray, and by the six words "Om mani pad me hum" emptied the Orb, and made it possible for sentient Beings (according to Combe, page 48) to enter the Paradise of Light.

III. Evidence enough has been produced to enable us to compare and sum up. We of course do not claim that Manicheism has been responsible for the material presented, but it may be that myths and dogmas then current were modified by additions and subtractions to enable them to harbour, a Manichee theology. In China Manicheism had flourished under a Buddhist garb and it may have been so in Tibet. But Buddhism, called in as a safeguard, soon became the master, and what remained of Manicheism

did no violence to a highly syncretic alien system.

We shall now attempt to compare the more suggestive features of Lamaism with some prominent doctrines of the Babylonian system. Manicheism in a pure form came from the West and, probably, with many imperfections, doubled back from the East. Buddhism was also attacking it powerfully in many directions. The Yuigurs, judged by the testimony of history later, not adverse to syncreticism, borrowed from many sources, and not only interpreted and emphasized much alien material to suit themselves, but were probably not over particular about the name by which the system should be known to posterity. We suspect that this theory will be justified to some extent when we consider certain aspects of the theology and church organization of Lamaism.

The mixing of the Light and the Dark is a fundamental conception of Manicheism. A casual reader might deny that it exists in Lamaism. But it may have hidden itself in the widely known legend regarding the origin of the Tibetan people who are assumed to be the offspring of the Monkey Emanation, a Light Ray from Spyan ras g'ziys' palm and a female of the Sriu Po or Rock Demons. It is probable also that the bodies of these interesting ancestors of the genus Homo were self-luminous. In Manicheism we are told how Khormuzta<sup>9</sup> with "the Divine Five" from dwellings of light

set out to attack the legions of the Dark. He was temporarily defeated and sadly wounded. This may be paralelled in the defeat of Spyan ras g'zigs and the dire consequences following until Od d'pag med came to his aid. The final victory seems to have opened Nirvana to the freed sentient Beings, but if Combe (page 48) is right, the salvation was existence in b'Dewa Chan, the Paradise of Light.

The organization of the Lamaist Church and details in the ritual and worship suggest Christian influence, which, as far as we know, is not pure Nestorianism. In Manicheism society was divided into the hearers and the Elect, which in a way resembles the monks and the laymen, ("those of the world" in both systems) of the Lamaist hierarchy. The existence of the latter in Lamaism as in Manicheism is justified owing to the fact that they are in a position to minister to the wants of their superiors. The grades in both systems are in some ways apalagous and the position of the Dalai Lama probably resembles the Magister or Pope of Manicheism who was the successor of Manithe soi-disant Paraclete.

The Lama is the magician in the Tibetan family. But he is much more. "B'Lama" really means "superior," and the members of this system both as regards name and position in society resemble the "Elect" of Mani's system. But others have seen in the name the idea of "Life" or "Soul Mother," which may have an implication similar to the Manichee Elect, whose duty was to free imprisoned Light particles by allowing them to enter his pure body.

The present writer has not made a special study of the Feasts of Lamaism. But one mentioned in the T'u K'ao is at least suggestive of the Manichee's Feast of Bema or the Teacher's Chair, which commemorates the death of their founder. It was held in March and the faithful prostrated themselves before an adorned but empty chair, which rested on a podium five steps up. in Lhasa, in the past at least, about the end of March "the Dalai ascends a mountain and precious vessels, gems and ornaments are spread out in the Imperial Temple. The exhibition is called the Treasures of Light." The next day an image of Buddha, dressed in coloured silks and embroideries, is suspended from the fifth floor. A lama, simulating spirit control, circumambulates the temple three times, worshipping the Buddha with dancing and singing. This goes on for a month. It would be a mistake, however, to consider the date; the fivefold elevation; the adorned figure; the "Treasures of Light;" and the simulated worship; as proof that this ceremony was a Tibetan Feast of Bema. It may be only a coincidence.

We come now to the gods of Buddhism and Manicheism. Here, metaphorically speaking, we are in danger of being dazzled by too much Light. The God of Mani was "King of the Paradise of Light." Jesus impatibilis was Sheen, Virgin Light

from the realm of Light. Mani, the Paraclete, was from Jesus, the Herald of Light; and the Elect were repositories of Light. "Man . . . . . . was a particle of Light in an alien and irredeemable envelope" and in dire need of a Guide and Saviour. Buddhism we have to shade our eyes for the same reason. Adi Buddha who is "pure light," emits rays which purify the whole creation. Then we have the unspeakable radiance of the Five Divine Beings, and the glory of rays from Emanations of Moreover; there are self-luminous bodies, radiant visions, flashes of Light, and Guardians of Light reigning in realms of boundless effulgence. Spyan ras g'zigs, perpetually incarnate in the Dalai Lama, is a white ray from Od d'pag med, as S'Prolma is a blue one from the same source. Moreover, the Pan Ch'en is the glory or Sheen of Boundless Light revealed. To the Manichee. God was anything composed of, and belonging to, the Light Substance. At times he is presented in a five fold nature and we find Khorumzta with the Divine Beings from five dwellings of Light attacking the Demons of the Dark. Does this indicate a relation to the Adi (pure Light) and the five Dhyani Buddhas? Again; Od d'pag med and the God of Mani are both kings in a Paradise of Light. The Heralds of Mani and the Avatars of Buddhism, both from the same source, include Jesus, Mani, Spyan ras g'zig, S'Prol ma, as well as the Dalai and Pan Ch'en Lamas respectively. Again; the mystic phrase "Om Mani pad me hum" is a procession of Light from Od d'pag med, the boundless source. In the quotation given above, the Adi Buddha may possibly be Khormuzta; and the five Dhyani's already in existence, are given a new relation and appear in a new dress. Demons, as in Lamaism, were common in Manicheism, but not so the theory of soul transmigration. However the Dalai and I'an Ch'en like the Light Heralds of Mani, are Avatars who as Guides and Saviours cannot relinguish interest in Humanity until a specified programme has been accomplished.

The worship of Manicheism no doubt resembled that of Marcion and Bardaism, and may be the explanation of that elusive something in Lamaism that makes us think of Christian influence. Indeed, some have seen in the Lamaist church organization a powerful machine awaiting the Spirit of God to possess it, and direct its operations towards a Christian ideal. This influence with its ornate ritual, daily worship, and varied paraphanalia, is not, so far as we know, definitely Nestorian. But what has been said may incline many to suspect Manicheism as it developed north of the Kuen Luch.

This brings us to Om MANI pap me hum, the meaning of which is lost to the Tibetans, if it was ever known. As we have seen, it is an invocation to Spyan ras g'zigs, who in many ways resembles Mani the self-styled Paraclete and Herald of Light. Jesus and Mani were both invoked with little discrimination by

the Manichees, and Manastar hirza. "Oh, cleanse my spots!" was an invocation widely used. What then if "MANI" is, after all, the name of the Babylonian heretic whose amazing personality fathered and nourished a religion, which for centuries defied Heathenism, Christianity, and the conquering system of Arabia's prophet? If so, the Dalai today may be in the seat of a former Magister or successor of "the Paraclete" Mani. Naturally, a militant Buddhism would change or disguise much of the original theology, but can we say the same of the church organization and worship.? If the connection suggested above can ever be proved, Mani the Christian heretic is still the object of one of the most popular invocations on Earth! 12

#### NOTES

Much of my information regarding the Manichees is from F.C. Burkitt's "Religion of the Manichees."

- 1 and 2. From "Religion of the Manichees;" the latter page 6.
- 3. Rockhill and others: Life of the Buddha.
- 4. Lotus: we read of it as the "Arm of the Sun," the "Friend of the Sun;" and the sun as the "Lord of the Lotus."
- 5. Combe: "A Tibetan on the Tibetans," page 48, note.
- The Incarnation or "Living Buddin" of the Chinese. "First heard of in China between 1436 and 1450 A.D." (Tu K'ao.
- 7. "Boundless" and "Endless Light:" Od d'pag med and s'Nang ba m't'a yas; the ruler of the "Paradise of Light." for what follows see, Rock. bill "Land of the Lamas."
- 8. The punctuation supplied by the present writer,
- 9. Ormuzd, the Persian Light God,
- 10. "Religion of the Manichees" page 165,
- 11. Turfan Liturgies: the Devas are Demons, products of the Dark.
- 12. The abounding litholatry (white stones) may suggest a Manichee adaptation of an ancient custom; but it is probably a survival of the old Tien worship of the early Chinese. Possibly it may be the Peh Ti (白骨) of the Bamboo Books. (Legge's Notes)

### LANGUAGE CHANGES IN WEST CHINA

#### J. H. EDGAR.

- Half a century ago the word was Life. Language seemed to be a key that would explain the mystery of human origins. But this belief has been modified considerably. Sayce, for instance, believes that "identity or relationship of language can prove nothing more than social contact. Language is an aid to the historian not the ethnologist." Issac Taylor, also, in the same spirit affirms that the idea "that relationship of language implies a relationship of race has been decisively disproved and rejected . . . . . . . It is no full and certain proof of man's parentage . . . . . but may be totally misleading." Marett, who declares that language and race may not be related at all, points out that speech would make the French and Belgians Romans; and the Spanish, Italians and Portuguese related in a way we know they are not. Taylor, also, truly remarks that Negroes speak English in Jamaica, French in Haiti, Spanish in Cuba, and Portuguese in Brazil. So we do not marvel that many men now look upon language as "extremely mutable," "misleading," "almost independent of race," and having an ethnographical value "extremely small." On the other hand de Quatrefages claims that comparative philology first drew attention to the unique position of the Basques, and that language "betrays at once the mixture of races, their succession, and the nature of the influence exerted on them . . . . by the different elements which have assisted in their formation." Language, he believes, in some cases "furnishes indications more easily understood" than "external features and anatomical facts." It is with the above opinions in mind that we begin a preliminary survey of the frontier dialects of China.
- II. In this investigation we shall employ the cardinal numbers from one to ten. It will be seen as we proceed that "words of the ancestral language will not only have changed in their descendant languages, but they will often have changed according to different rules." Some will also suspect that that there may have been "actual differences in the structure of the larynx which may suffice to explain why it is so difficult to utter certain sounds which come easily to others." Our task will include Chinese, Giarung, Tibetan, Lolo, Miao, Japanese, and ethnic groups in the Min Valley, linguistically grouped as Ch'iang. The first table will compare ancient and modern Tibetan with the Giarung in the Ta Kin and Min valleys.

Table A.

No.	Lhasa Tibetan		Giarung	Giarung	
	Ancient	Modern	Kin Ch'wan	Min Valley	
1.	g'Chiz	Chí	Ge Ti	Ge Ti	
2.	g' Nyis	Nyi	Ge Nes	Ge Nes	
3.	g'Sam	Sum	Ge Sum	Ge Sum	
4.	b'Zhi*	Zhi	Ge Blibs	Ge Bri, Dri, Ch'i.	
5.	l'Nga	Nga	Ge m'Ngu	Ge Mu	
6.	Drug	Drug	Ge Dro	Ge Dru, Drog.	
7.	b'Tun	Tan	Ge hs'Nes	Ge ha'Nye, Ne.	
8.	br'Gyad	Chè	Wur 'Yat	Wur' Ya, Wuri Ya	
9.	d'Gu	Ga	Ge n'Ngu	Ge n'Gu	
0.	b'Chu	Chu	hs'Gi	hs'Gi, Chi.	

<sup>&</sup>quot;The old form may have been br'Zhi.

Table B. Min Valley Ch'iang, Lolo and others.

No.	Chinese	Krochï	Weichow	Wen Ch'wan	Chiu Tzi	Lolo	J <b>a</b> panese
1.	Ih	Ă	Ŭ	<u> </u>	Ar	Tsi	1 Chi
2.	Er	Ni	Nu, Nye	Nu	Ner	Ni	Ni
3.	San	Shae	Sän	Sae	Shae	So	San
4.	Sze	Zhi	Dri, Tri	Zī	Dre, Zhe	Ri	Shi
5.	Wa	W a.	Wa, We	Wa	Wa	Wei, Ngo	Go
6.	Lŭ	s'Tr'ag	hs'Tr'a	Chu	hs'Tr'u, hs'Tu	Нű	Ra Ka
7.	Ch'í	hs'T'un	hs'Nu, hs'Chi	h'Nu	sh'Nye, sh'Ner	Shi	Shi Chi
8.	Pă	K'ra	Tra, Krae	Chie	Tra, Kr'a	Hai	Ha Chi
9.	Chiu	Gu	Gugu	hn'Gu	Mei, Gur	Gu	Gu
10.	Shī	h'T'u	h'Chu	n'Tiu	She, Ter	Ch'e	Ju

Some Miao Dialects compared with Table C. Chinese and Tibetan.

No.	Chinese	Tibetan	Miao
1.	Ih	Chi	Vi
2.	Erl	Nyi	Au, Ou, A
3.	San	Sum	Pieh, Peh, Pu, Tsin
4.	Sze	Zhi	h'Lao, Plon, Pi, Glao
5.	Wu	Nga	Chia, Pa, Pö
6.	Lŭ	Drug	Tsou, Chou, Glao
7.	Ch'i	Tün	Hsiung, Hsiang, Hsia, Chiung
8.	Pă	Chè	Ya, Yi, Zhi
9.	Chiu	Ku	Chu, Chia
10.	Shi	Chũ	Chu, Ku, Kao

Assuming a common origin for the numerals of the languages following, and by comparing the seventh century Tibetan with the Lhasa pronunciation of today, it is possible to examine the linguistic changes on the frontier with some certainty. The old language, judged by the alphabet invented about 640 A.D., demanded superadded, subscribed, prefixed and affixed consonants, until the words often suggest English written backwards. But in standard Tibetan no attempt is made to pronounce the words as written. For instance, d'bus in the ancient language becomes y'i; bs' grags becomes dra; br' Nga is pronounced nga. Again, gra, bra, kra, and dra all have the sound of the last combination; and by, yy, ky, and py are all pronounced as *chi* or ji. Indeed, most of the unweildy consonantal combinations are ignored, demand simple changes, or an unconscious emphasis determined by the neglected letters. For instance, r'Ta and s'Tags are both Ta, but evidently in different tones. But we are soon aware of an interesting fact: the word modifications have not advanced uniformly nor along similar lines. This will be illustrated when we come to the number Whether the causes which have been responsible for the linguistic vagaries of the Sino-Tibetan frontier are racial, climatic, or pathological we cannot say. But we can show that they exist and are related, by comparing the many languages and dialects with the Tibetan orthography of 1300 years ago. Although in all these languages the numbers from one to ten seem to have a common origin, the relationship today is not too obviously apparent. How for instance is g'chig related to Ti, Chi, Ih, Uh, Ah, Ngik,

Giet and Yill It would seem that modern Tibetan ignores the g which has the sound of ch in loch, and stresses the ch which resembles the English j. Others, like the Chinese, attempting the gh (as in lough) have gradually arrived at ih and related sounds. In some cases t and ch interchange. In the non-Chinese groups tvo as nyi offers no difficulty. The Cantonese yi is seen in the Miao au, ou, or a, and many words are related to the former Chinese sounds ni and nip. One of the groups in the hills around Weichow who are yi call themselves Er Mi or Yi Ren.

Three all through presents no difficulties with the exception of the Miao pich, pch and pu: sounds which seem to have an alien

origin.

Four: b'zhi is very interesting. In modern Tibetan the initial b is eliminated, and the sze, shi, zi and zhe are quite natural. But what about bri, dri and chi? The zh often has a distinct r sound which explains the former three as well as the Japanese ri. Blibs is an earlier form of bri; and plou, pi, and perhaps both h'Lao and g'Lao, are corruptions. Indeed, the initial b has often has often an h sound; and as r and l readily interchange, we assume that h'Lao and gh'Lao were originally bri.

Five is related in all the Giarung lists, and also in the Ch'iang groups, as we well as in those indicating the Japanese and Lolos. The Giarung m'Nga follows the Tibetan l'Mga as does the Japanese Go and Lolo Ngo. But the Giarung m'Ngu becomes Wu in Chinese; occasionally Mu in the Min Valley; and appears as Wei, Wa, and We in the Ch'iang districts. The Pa and Pi of the Miao regions may be an earlier form of Wa and Wo, a change common enough in both Chinese and Tibetan.

Six is related all through the groups. The dru and chu changes require no comment, and while the Japanese evade the d initial, the Chinese not only do the same, but replace r with l. The Miao tou and chou are simple variations of dru, and g'lao may indicate

that the original drug was grug.

Seven is peculiar. The Giarung is generally hs' Nes which may suggest a quinary system, as hs prefixed, alone distinguishes seven from two. In some cases the prefix is reduced to a simple h. The, Tibetan is b'tun and may have a relation to the Krochi hs'Tun, but hardly with the chi, hs' Nu, hs'yi, hs' Chi and Shi Chi, modifications which however, may include the Miao hsi(ung), hsia(ng) and hs'a.

Light gives more information than any other numeral. In ancient Tibetan it is br'gyad and now pronounced ch' by the Lhasa speakers, but wur yat by the Giarung groups. In Chinese it has become Pa or Pak. It is clear that the modern Tibetans ignore br and d, all of which the Giarung retain; and the Chinese shying at rgy turn out pa or pat. The Miao, however, apparently in most cases turn the gy into y, and ignoring all the consonants simplify the sound to ya yi or zhi. The Lolos and Japanese work along

similar lines. The Ch'iang either follow the Tibetans, or after deleting the gy and d turn the br into tra, or reverse a Tibetan orthographical rule by going back from tra through bra and gra to kra. The Miao zhi is related to the ch modification.

Nine is obviously related in all the groups. At times an attempt to combine an m' with ch (as in loch) has resulted in a

sound approximating mei or mu, really m'ghu.

If the interchange between j, ch, sh and t is kept in mind ten presents no difficulties. It may be, also, that the initial h and n' indicate a former value of the b in b'Tun and b'chu.

#### NOTES

- The yi for two of some dialects in China changing to er is also seen in the Ch'iang dialects.
- 2. This is so in many frontier regions: t'ien becomes ch'ien and so on.
- 3. Yi 文 is pronounced Er. In ancient times there were Nine Yi in the Min Valley, besides divisions of Ti, Ch'iang, Yong and Man. The survivors of the ancient Yi are now "Er mi" or the Chinese (文人). Yi ren.



#### **BOOK REVIEWS**

It is the intention of the editors to include in the Journal reviews of all books on West China, both new and old. We here make a modest beginning by including the reviews of a few such publications, some relatively ancient and some quite modern. It is hoped that this Journal will become known as The Storehouse of information on all phases of life in Western China, and as such it should make available to its readers general summaries of all other publications relating to this part of the world.

# "SZECHWAN, ITS PRODUCTS, INDUSTRIES," AND RESOURCES.

Sir Alexander Hosie, M.A., LL.D., F.R.G.S. Kelly and Walsh, Limited, Shanghai, 1922.

As the author says in the preface, this book, published over a decade ago, "Is simply a book of reference for one of China's largest and richest provinces from a commercial and industrial point of view. It takes no account of the political turmoil and inter-provincial warfare with which Szechwan has been harassed since China became a Republic. These internal troubles, combined with lawlessness and brigandage, have naturally had a disturbing effect on the province; but, in spite thereof, its productive and industrial life as described herein remains practically unchanged."

Sir Alexander Hosie, packed into this book of 185 pages a veritable mine of information, which will continue to be one of the outstanding sources of Szechwan conditions, until modern industry and modern agricultural methods change the whole complexion of agriculture and industry in this far distant province of China. The author shows a fluency of style and a range of knowledge, written after several trips into remote corners of the province, and years of very careful observations, which makes this book so worth while, that the reader cannot help but become absorbed in its pages. I most heartily recommend this volume, the fruit of several years of close observation and careful study, to those seeking concise information of things as they are today (1935) in Szechwan. We have had few trayellers and fewer books that describe the real and

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significant conditions in Szechwan, but this book, beginning with its all inclusive contents, and then later its clear and scientific descriptions, gives to the interested reader a fund of knowledge in a "nut shell".

The author has succeeded in synthesizing and organizing into one short volume a wide range of materials which is, up to the present the best source book for the business man, teacher or scientist.

F.D.

### "THE THREE CROSSES IN THE PURPLE MISTS".

An Adventure in Medical Education under the Eaves of the Roof of the World.

By William Reginald Morse, B.A., M.D., C.M., F.A.C.S, L.L.D., F.R.G.S.

The Three Crosses referred to in the title are the Golden Cross of Christianity, the Red Cross of Geneva, and the Green Cross of the Medical profession. The "purple mists" is a term used to designate the westernmost province of China, Szechwan, which is nestled on the eastern slope of the Tibetan plateau, the so-called Roof of the World. In 1909 A.D. at Chengtu, the capital of Szechwan, there was founded the West China Union University as a co-operative enterprize of several different mission groups. The recording of the conception, birth, and early growth of this university and especially of its medico-dental departments is the main concern of this book. The "Three Crosses in the Purple Mists", therefore, is the record of early Christian Medical Education in Szechwan.

The author was one of the pioneer founders of the Medical College and has been intimately related with it ever since-much of the time as its Dean, so that he is well qualified for the task he has undertaken.

The first part of the book is devoted to the development of a geographical, social, and psychological background for the proper interpretation of the facts which follow. This motive is accomplished by a description of the province of Szechwan, its location, communications, exports, natural resources, etc., together with a discussion of its people, their origin, customs, habits and disposition. A brief summary of the principles and psychology of Chinese

medicine plus a review of the history of Medical Mission work in China complete the description of the setting into which the Union University was born.

The travail of birth and early growth of the institution is intimately discussed along with the personalities concerned and the resulting history becomes a heroic romance. The author has pictured vividly the difficulties involved and overcome in administration, in securing the first few cadavers for anatomical dissection, in teaching students in a foreign language, in training Chinese teachers, in providing for furloughs, and in carrying on classes

under rifle fire and unfavorable newspaper publicity.

In spite of these obstacles and many more, this isolated provincial university with the only real medical school within a radius of thousands of miles and with the only dental school in all of China, has progressively advanced to its present relatively efficient status. In spite of grants from the Rockerfeller Foundation and from other agencies, in the from of scholarships, funds, equipment, and teachers have always been insufficient for the need. But, through it all the Three Crosses, signifying Christian altruistic service, have been uplifted before students, faculty, and populace at large.

In addition to historical facts, the relation of the Union University to the Chinese environment, to the co-operating missions, to the Mission Boards abroad, to the Educational Boards abroad, etc., is clearly described. The general facts relating to medical curriculum and budget are also given. The various faculty members are also mentioned along with the special contributions of each one. A list of graduates is appended. Water color paintings of the Yangtze gorges and snow mountains by Mrs. Morse, photographs of faculty and student groups and university buildings, ground plans of the university campus and various buildings all add to the interest and value of the book.

The author has done well a worthwhile piece of work in recording and collecting so many facts relative to the early history of the West China Union University, and a careful reading of the book gives one not only a comprehensive idea of the University itself but also a working knowledge of the geography and culture of West China, and of the fundamental principles of Chinese Medicine.

### "TU-FU, CHINA'S GREAT POET."

The Bard of Ts'ao T'ang Ssu. A Translation of some of Tu Fu's Poems written in Szechuan. By A. J. Brace, F.R.G.S. Published by the Rih Hsin Press, Chengtu, for the Y.M.C.A. Price \$1.00 Mex. 72 pages, paper, 1934.

The following review is taken from the West China Missionary News of November, 1934, by permission of the editor. The author of this book is the 1934-35 president of the West China Border Research Society, and is one of the charter members of the Society.

"Mr. Brace is worthy of our gratitude in having rescued from antiquity this small collection of poems, dating back nearly 12 centuries, of special interest, one would think to all Szechuenese, and more than all to residents of Chengtu. Ts'ao T'ang Ssu is one of several famous temples in and about the Capital of Szechuan. Chengtu remembers with pride the time when it produced the Emperor Liu Bi, and was the seat of the Three Kingdoms.

"In chanting the praises of the verdant Capital little did the poet think that in an educational center another race would in two or three decades plant nearly a thousand heaven-aspiring trees. He found the city beautiful, but 'had not where to lay his head.' So he built for himself the Ts'ao T'ang 'Reed Hut,' putting posterity in his debt by writing 300 poems, solacing lonely hours by drinking Szechuan wine overmuch, so hastening his death.

death.

"Tu Fu occasionally made trips into the surrounding regions. His reference on page 7 to Deer's Head Mountain is evidently Beh-Lu-Din, the popular missionary resort in hot weather. The Deer is White Deer, and the Head is the Summit. The South West is the direction from Chengtu, and 150 li is a good guess at the distance travelled.

"Tu Fu thought he was writing poetry, but some would question it. There is much of the spirit of poetry, but the average reader should not be greatly blamed if he fails to see it. This, granting that prose in from may have the same effect as poetry. In the third line of the sixth page, since there is nothing in Chinese for the word water I would venture to translate, 'there is nothing able to cleanse my heart.'

"As a sample of good poetry I would suggest these six lines from page six:

"Heaven has created these tremendous steeps. Dagger Gate seems the strongest under Heaven. Unbroken ranges protect the great south-west; Like rocky horns they face the north. The two high cliffs have ramparts strong, Sculptured there like city walls.

<sup>&</sup>quot;Also a selection from Kwan Hsien;

- "I come to the rope bridge where horses can pass in pairs. Tis autumn time and I look about with deepest pleasure. For the Green Mountains with bamboo are covered, I see the rushing river coming down from Kwan Keo town.
- "And on page 57, "If I loved not flowers I should certainly wise to die.

Spencer Lewis.

# 'TRAVELS OF A CONSULAR OFFICER IN EASTERN TIBET."--ERICH TEICHMAN

Published by the Cambridge Press, 1922

This is a book written by a man who writes from two quite different points of view. The first, is as he says in the Preface, that of a traveller to whom "there are few pleasures, sports or pastimes to compare with the interest and excitement of travelling through and surveying, no matter how inadequately, remote regions hitherto unmapped and unexplored. Every untrodden trail invites the traveller into the unknown, every mountain range-demands to be crossed to see what lies on the other side and every unknown river, asks to be followed to its unknown source." The second point of view is that of a Consular officer interested from a historical and political angle in the region through which he travels, and in the officials and peoples with whom he meets.

The author who is now Sir Eric Teichman; was in Peking at the time of the Dalai Lama's visit in 1908; in Chengtu, when Chao Er Feng was murdered in 1911; and in Tachienlu as British Consular Officer in 1918. At the latter time he was approached by the the Chinese officials who asked him to assist in the peace negotiations then taking place between the Tibetans and Chinese. In the course of these negotiations the author spent a year travelling in Eastern Tibet and it is the account of these travels that is here written.

The book is divided into two sections; the first is a Historical Introduction and the second is Travels in Eastern Tibet. The Historical Introduction gives a brief history of the relations between China, Tibet and India from early times to the end of 1918. To those specially interested in the problems or this border region, there is presented in a continous form, a most interesting summary of the attempts at occupation and colonization by the Chinese of this region. This account, save as isolated facts, it would be

A vivid picture is given of that difficult to obtain elsewhere. almost legendary figure Chao Er Feng, a master not only of mil-

itary tactics, but also of astute diplomacy, as well as bluff.

The second part of the book is a description of the author's travels, given with full details as to the incidents met with, and the impressions made on him by both the country and the people. These trips were five in number, first from Tachienlu by way of Kanze and Jyekundo to Chamdo; then from Chamdo to Batang and return; from Chamdo to Rongbatsa and return; from Chamdo to Yenching and then to Batang; finally the trip from Batang by the north read to Kanze and then to Tachienlu. These trips gave him the opportunity of piercing the country in all directions.

Teichman was not very highly impressed with the type of Chinese soldier and official that he found on the border. Several time he compares them with the Kansu Moslems and the Tibetans and always to the disadvantage of the Szechwan Chinese. author also has some very interesting comments on the colonisation of Eastern Tibet by the Chinese, "generally speaking of Chinese and especially the Szechwanese are incapable of settling on the bleak uplands of Kam" (page 67). And in relation to to differences between Chinese penetration of Mongolia and of Tibet, he has this to say "for one thing the Mongol lets himself be pushed back, whereas the Tibetan does not" and "that in Mongolia the second generation of the Chinese immigrant half-caste family is to all intents and purposes, Chinese; in Tibet, the half-caste children are to all intents and purposes Tibetan" (page 67). Although these comments sound a bit biased in favour of the Tibetans, yet the author is not slow to pay his tribute to the adaptive powers of his Chinese cook; "my cook comes from Peking. When we left Tachienlu, he thought that he could not possible cook my food without charcoal, then he found that he could not do without firewood; then he complained when eggs and vegetables gave out. Now, he is reduced to a fire of yak dung, and flour, butter, mutton and dried turnips, yet he continues to produce excellent meals', (page 109).

In regard to the political future of the Tibetans the author's reaction is that "if the Tibetans were formerly children it must be realised that they have now grown up and that while desiring nothing better than to live on good terms with the Chinese and enjoy the benefits of Chinese trade, they insist on managing their own internal affairs without Chinese interference. The history of the past ten years has shown that they are fully capable of doing so, and it seems paradoxical that the Chinese, who have so signally failed to maintain law and order in their own country, should put forward any claim to have a hand in the administration of peaceful and orderly Tibet." Yet the the author goes on to say "Once these (mutual) concessions are made and the boundary dispute settled, the Tibetan will yet, willingly enter the Chinese Com-

monwealth of the Five Races' (page 10, preface).

The technical makeup of the book is excellent. The sixty-four most interesting photographs give life and vivacity to the author's rather matter-of-fact descriptions. The eight maps which are included, help greatly in visualizing the actual routes taken by the author. If there is one thing that is annoying to a serious reader, it is a book of travel without an adequate map. This book does not fall into that category. In addition there is a complete index, and also a copy of the author's log-book, showing distances travelled, the itinerary and weather conditions.

This book, the reviewer found, has a most unique interest about it. But one reading is not enough, because of the store of interesting and pertinent facts that are there, but which can not be fully appreciated on a casual survey. On the first reading, one is caught by the charm and interest of the description of travel and adventure under all kinds of conditions. On the second and third appraisals, one realises, the painstaking, accurate careful work that has been done by the author. It is a valuable contribution to the knowledge of the peoples and country of Eastern Tibet.

R.C.S.

## "HIGH ALTITUDES."

Missionary Problems in Kham or Eastern Tibet. J. H. Edgar Printed by the Canadian Mission Press, Chengtu. (Undated).

This little booklet of only 21 pages contains a vast amount of fascinating material. The auther, who has resided for thirty years on the Chino-Tibetan borderland, states in the introduction that the book was written to "arouse interest in an out of the way corner of the Chinese Republic;" and this he has succeeded in doing to a remarkable degree.

A brief introductory chapter (2 pages) on "Lama Land and Lamaists," discusses the extent and population of the "Land of the Lamas." Ch'wan Pien, Ch'ing Hai and Tsang (Lhasa controlled Tibet) are estimated to have a total population of approximately three million persons, all of whom "pay homage to the Dalai Lama." The author prefers the use of the terms "Lama Land" and "Lamaist," to "Tibet" and "Tibetan," as these latter terms still await accurate definition by the geographer and anthropologist.

The second chapter ( $2\frac{1}{2}$  pages) is a fascinating description of Lamaism, which is defined as "a palpable reaction to geographic and climatic anomalies." We should like to quote the whole chapter, but must confine ourselves to a few sentences summing

up the reasons for Lamaism having become the power that finally united the diverse groups in Tibet into "a nation with a common language, a fixed ideal, and a capital with an authoritative pull." Lamaism, when examined in detail, discloses: "(a) A holy city with a God Incarnate whose authority is final. (b) A fraternity composed of men from all localities, positions in life, and different ethnic groups, who submit to training and receive ordination in the theocratic capital. (c) Then miniatures of the holy city, established all over the Tibetan continent, are stocked with Lhasatrained monks and governed by Dalai appointed cardinals."

The third, and longest, chapter (12 pages) is a vivid description of "Litang: the Land of the Azure Sky." The Litang plain, the town, the lamasery, which is the largest in Chinese Tibet, and the inhabitants, are all brought into the picture. Finally, the advantages of Litang as a centre for missionary effort are pointed out, and here the author reveals his sympathies for Chinese administration when he states that "mission work will have opportunities to succeed in proportion to the tightening of Chinese

control."

The final chapter (4 pages), entitled "Some Effects of Altitude on Body and Mind' is largely a review of Major Hingston's article in the R.G.S. Journal for January 1925, in which the reactions of trained men to altitudes between 10,000 and 28,000 feet are described. To these the author adds a few of his own experiences. The chapter should be useful to those contemplating either travelling in Eastern Tibet or more prolonged residence at such high altitudes as prevail in Litang (13.500 to 14,000 feet).

In this little booklet the honorary president of the W.C.B. R. S. has not only condensed into very small space a vast amount of interesting material, but has done it in his usual inimitable style. It should be read by all missionaries, travellers and explorers to Kham, and it will undoubtedly surprise many to

find so much of the Tibetan land so freely accessible.

L.G.K.

## "THE NOSU TRIBES OF WEST SZECHWAN."

Notes on the Country and its Peoples, and on the Diseases of the Region, by Drs. E. R. Cunningham, L. G. Kilborn, J. L. Maxwell, W. R. Morse, H. J. Mullett, and F. Dickinson, Esq. With a foreword by Dr. Maxwell.

Issued by the Department of Field Research, Henry Lester Institute, Shanghai. Supplement to the Chinese Medical Journal.

March, 1933.

The publication of this Supplement is a real contribution to our knowledge of West China, and the Chinese Medical Journal is to be congratulated on its publication. Dr. Maxwell explains that the report is a result of an expedition by a group of specialists into a practically unexplored territory, inhabited by a primitive tribe, the Nosu. The data herein presented are of great interest, for very little is known of this tribe.

There are six articles in the report, the first by Dr. W. R. Morse being entitled "Some Descriptive Notes on the Nosu." This is written from an ethnological and anthropological point of view by one who had labored for years in this field, and is an authority on the tribes of West China. Dr. Morse's monograph dealing with the authropology of the inhabitants of West China will be looked forward to with great interest.

F. Dickinson writes on "Travel in Nosu Land." He discusses the general geographical nature of the region, and the details of the journey itself. Details of the mode of travel reveal that it is not merely a pleasure trip, but was accompanied by considerable hardship and danger. Very interesting details of the country, Nosu villages and homes, people and customs are given.

Dr. L. G. Kilborn deals with a more technical problem, "The Blood Pressure of a Primitive Race." This in itself seems a simple problem, but it is a part of the much larger and more important problem of the relation of the hereditary and environmental factors to the physiology of the human race. It was discovered that the blood pressure of the Nosu is relatively low, the average systolic pressure of 150 individuals being 105 mm. Also the pressure falls with age. The relation to civilisation is discussed.

Dr. Maxwell describes "A Preliminary Survey of the General Diseases met with in the Nosu Country." He gives observations of his survey of acute and chronic infectious diseases, protosoal and metazoal infections, diseases of the intestinal tract and of the skin, traumatisms, tumors and intoxications. He notes the relative absence of many infectious diseases, including tuberculosis in the mountain residences. On the other hand there is recorded the discovery of "the presence of a new and serious endemic area of Leprosy."

Dr. E. R. Cunningham's paper on "Some Obserations on the Eyes of the Nosu" records the results of detailed examination of eye characteristics, and of pathological conditions of the eye.

The last paper of the report is on "Dental Observations Among the Nosu," by Dr. H. J. Mullett. The general impression after oral and dental examination of 140 adults was one of "well-developed, well-functioning dental organs." Mottled enamel was observed in many regions, and chemical analysis of the drinking waters of these regions indicated a relation to the fluorine content. Caries was practically absent; gum disease equally universal.

The report is illustrated with sixteen photographs, and one diagram. Interesting and important as are the observations here-

in recorded, the chief value of this report lies perhaps in the

indication of great possibilities for future investigation.

In the transcription of Chinese words, a uniform system of romanization throughout the publication should have been adopted. For place names, the Post Office spelling is recommended.

H B.C.

# "TRAVEL AND RESEARCHES IN THE INTERIOR OF CHINA."

BY E. COLBORNE BABER, F.R.G.S.

(Chinese Secretary of H.B.M. Legation, Peking, 1879).

Edward Colborne Baber, the author of the Journal entitled "Travels and Researches in Western China," consisting of four several papers, published by the Royal Geographical Society in "Supplementary Papers," under the respective heads: "A Journey of Exploration in Western Szechuan" (read before the above Society on June 13, 1881), "Journey to Tachienlu in 1878," "Notes on the Route followed by Mr. Grosvenor's Mission through Western Yunnan from Tali-fu to Teng-yuch," and "On the Chinese Tea Trade with Tibet," was a distinguished Chinese scholar and traveller of note. The above Journal was the fruit of three journeys into China's "farthest West" in the years 1876-78, and earned him the award of the R.G.S. medal.

The particular part of China described in the first of the above papers (to which paper your reviewer has mainly confined his remarks) had at that time (1876-7) only been visited by Mr. Baber, and was described by Lord Aberdare (then president of the R.G.S.) as "absolutely new country," in which he had been "fortunate enough to come across a people of whose existense, race, and character hitherto nothing at all had been known. Baber, in his main "journey of exploration in Western Szechuan," made a rough circuit of Independent Lololand, ex Kiating-fu (1070) west to Fulin (2150), and thence south to Hui-li-chou (6000) by way of Yuch-hsi-ting (5380) and Ning-yucn-fu (5130), and northeast to Ping-shan-hsien near Suifu.

Your reviewer would echo the President's culogium when he says: "It is impossible by a few extracts to convey an idea of the amount of minute and valuable information contained in the paper, which includes several sheets of observations most carefully taken . . . These observations and the admirably-made charts render the

paper one of unusual and extraordinary interest, quite apart from the fact that the region discovered was inhabited by so singular a

people as the Lolos appear to be."

From the above it will be clear that the author has peculiar qualifications for his task, and in this narative of his travels combines learning, lucidity, and a sense of humour. That it is written observantly it is superfluous to say. Of course, some of the social and economic conditions which he describes have, at this distance of time, and under the rapidly changing conditions of Chinese society, what may be termed a historical value only. We are dealing here with a period when, as he says, "the whole of the Western border, with slight exception, was untraversed," when, for instance, he calls the Chungking-Chengtu highway "the finest road in China."

The Western Chinese he calls a "fair-dealing, justice loving people," which is happily still true in the main. He remarks on a peculiarity of Szechuan in the matter of the country being dotted over with homesteads instead of grouping in villages as is habitual in the eastern provinces, and quotes Richthofen as saying that such "isolation is possible only where they expect peace, and profound peace is indeed the impression Szechuan prominently conveys." Alas for the days!

He is confessedly puzzled over the distribution of the waters over the face of the Chengtu plain, and quotes Richthofen who describes such irrigation and drainage as "natural," but mentions also Captain Gill's explanation of the existence of "ingenious

irrigation works," which is the correct one.

Commenting on the memorial arches ("pai-fang") he says "the peculiarities of Chinese architecture and sculpture appear perhaps at their best in these monuments," and cites Richthofen as declaring some of them to be "masterpieces of Chinese art." Baber gives it as his opinion that they are "developments of the primitive monuments of which the great triliths of Stonehenge are the type—two posts and a lintel," for which view it has been said "there is a considerable balance of probability." The pagoda he holds to be of direct Indian origin.

He describes at some length the temples and their shrines on Mount Omei. This has since been well covered by later writers, but it is interesting to note one conclusion he arrived at, viz., that "the builders of the Pu-hsien shrine, as well as the artists who designed the castings, were Indian Buddhists." Speaking further of this fane, he congratulates himself upon "the discovery of what may be considered, next to the Great Wall, the oldest Chinese building of fairly authentic antiquity, containing the most ancient bronze casting of any great size in existence." He tells of his protest against the priests' categorical statement that the famous tooth shown him was Buddha's. To his objection that in such case Buddha must have been 140 ft. in height, the retort was:

"How do you know he wasn't? (and) how do you know if the tooth hasn't grown since he entered Nirvana?"! !!!

Speaking of Mount Wa, which has since become a well-known feature of the border landscape in the region between the Tung River and Yachow, he says: "The upper storey of this most imposing mountain is a series of twelve or fourteen precipices rising one above another, each not less than 200 ft. high, and receding very slightly on all four sides, . . . . for about 2500 ft." The Lolos informed him that the famous cliff cattle (ngai niu) are to be met with in herds of from seven to twenty in the above region. He believes them to be a species of bison.

He had his first sight of Lololand from a military post just above the valley of Hai-tang (whence your reviewer first saw it in 1900), and remarks that this is "the only view obtainable down the whole length of the Chienchang Valley' (formerly the prefecture of Ning-yuen). And the next thirty pages are largely taken up with descriptions of this people "of whose existence," to quote Lord Aberdare again, "hitherto nothing at all had been known."

Baber depicts them as a far taller race then the Chinese ("taller probably than any European people"), although among those your reviewer saw the tall ones were slightly in the minority. "They are remarkably straightbuilt, with slim, muscular limbs," and adds that "with very rare exceptions the male Lolo-rich or poor, free or subject—may be instantly known by his horn . . . . all his hair is gathered into a knot over his forehead and there twisted up in a (white) cotton cloth so as to resemble the horn of the (fabulous) unicorn . . . . with its wrapper (or turban) this horn is sometimes a good nine inches long." He rightly believes these to have some religious significance.

Speaking of the Lolo women, whom he calls "petticoated Oreads," he says they are "joyous, timid, natural, open-aired, neatly dressed, honest girls . . . . damsels with whom one would like to be on brotherly terms (!) . . . Their hair was twined into two tails, and wound round their heads; they wore jackets and flounced and pleated petticoats covered with an apron and reaching to the ground . . . . They hold a very respected position and may

even succeed to the sovereignty of a tribe."

He devotes a long paragraph to the ethnology of these people, which I am fain to give in full: 'What the Lolos are, whence they have come, and what is their character, are questions to which I can only make a very incompetent reply. And it must be premised that it would be very unfair to draw a definite general conclusion from a small number of scattered and embarrassed inquiries at points round their frontier. No description of them exists in any extant work . . . . It may fairly be said that nothing is known of them. They have been confounded with Miaotze, Man-tze, Si-fan, Yeh-ren, Tu-i, and other suchlike loose names, indefinite Chinese expressions, mostly contemptuous, and altogether

devoid of ethnological significance. 'Lolo' is itself a word of insult, of unknown Chinese origin, which should not be used in their presence, although they excuse it, and will even sometimes employ it in the case of ignorant strangers. In the report of Governor-General Lo Ping-chang they are called 'I' (translated 'barbarians' or 'barbarous tribes') . . . . They themselves have no objection to being styled 'I-chia' (I-families), but that word is not their native name. Near Ma-pien thay call themselves 'Lo-su'; in the neighbourhood of Lui-po-ting their name is 'No-su' (possibly—I should say probably—a mere variant of 'Lo-su'); near Hui li-chou the term is 'Le-su', the syllable 'Le' being pronounced as in French.'

He gives the area of Independent Lololand as "about 11,000 sq. miles . . . . . a district mountainous throughout, and containing a few summits which overtop the limit of perpetual snow," the ridge forming the Eastern wall of the Chien-chang Valley being pierced at only one place, i.e., Ning-yuen-fu.

Speaking of their class distinctions, i.e., Black-bones and White-bones, he, rightly as I think, says the former "seems to mean 'freeman' or 'noble' (patrician), and the latter 'vassal' or 'retainer'. '' It may here be noted that the term White-bone is usually applied to those under Chinese rule, "whether of choice or otherwise." They are ruled by headmen or chiefs, known as "tu-sze," i.e., indigenous chiefs.

On the subject of their religion he says: "It is very difficult to elicit a reply to questions regarding their religion . . . Their cult, whatever it may be, is fostered by a class of medicine men . . . They worship three deities: Lui-wo, Apu-ko, and Shuashe-po, of whom Lui-wo is the greatest," and represented to us by three twigs of the willow stuck in the ground, the tallest in the centre.

He devotes six pages to a vocabulary comparing the languages spoken by the Lolos and the Si-fan respectively, in which there are to be found many similarities. A number of these are similar to, and a few identical with Lhassa Tibetan, such as "nyi-ma" = the sun; "djo" or "djui" (L. T. "ch'u") = water; etc., etc.

The Lolos possess the art of writing, of which he gives several specimens at length, which he "was fortunate enough to secure through the kind offices of the French missionaries." I was interested to note that here and there one and another of these bore considerable resemblance to Tibetan script. Undoubtedly an intensely interesting people, whose ethnology, despite subsequent research, still remains somewhat vague and obscure.

He is very interested, as are all who have travelled at any length in Western China, in the people who go by the name of Si-fan, and he keeps referring to them again and again. Accompanying notes on pp. 93-6 is a map showing the distribution of the Si-fan tribes. It is worthy of note, by the way, that on this map

Mount Menia is marked quite plainly norty-west of Tachienlu, and a Chinese map indicates a peak or range, east of the Yalung and north-west of Tachienlu, under the name of "Min-ni-ya-ko."

Is this the modern "Min-ni-ya kung-ko (ka)"?

Speaking of the ethnology of the Si-fan people, he says: "It has already been remarked (p. 81) that Si-fan, convertible with Man-tze, is a loose Chinese expression of no ethnological value, meaning nothing more than 'Western barbarians.' But in a more restricted sense it is used to designate an indigenous people (or peoples)—sub-divisions of the Tibetan race—which inhabits the valley of the Yalung and Upper T'ung, with contiguous valleys and ranges, from about the twenty-seventh parallel to the border of the Koko-nor.... This people is sub-divided into eighteen tribes." And here follows a list of their names, Djia-la, the first of these, being the native name of the district ruled by the (then) king of Tachienlu, whose style he gives as "Djia-la djie-po" (L. T. "gya (1)-po" = king), i.e., King of Djia-la.—In another place Baber calls these the "Menia" people, but restricts it to "the Djia-la and other five Tibetan-speaking tribes (which he names on p. 81) who inhabit the valley of the Yalung River."

Speaking of the origin of the word Tibet, he says "a native employs the expression 'peu lombo' (Tibet country)". Your reviewer prefers, with Mr. George Bogle (whom Baber quotes), the French "pu" = "Bod." On the India-Tibetan border the expression is "Bod yul" (d silent and o as French u), i.e., land of Tibet. Again, speaking of Lhassa as "Deba Jung" (land of the Debas), is he not conflicting the term "jung" with that used throughout Sikkim for "fortress" or "strength"? He admits the etymology of "jung" to be "uncertain." Referring to the above and other instances, he cites an example of how Tibetan consonants are "suppressed" (more commonly in L.T. than that spoken in Eastern Tibet), e.g., the name Darjeeling, which is written "rdorgie-lin' but pronounced in Eastern Tibet "do-gie-lin." Baber gives this as meaning "diamond country," whereas we have always understood it to be "dor je-lin" = "the hill of the thunderbolt," in reference to the popular legend which credits the lamas' sceptre ("dor-je") as having fallen from Heaven!-While on things Tibetan, may I draw attention to the fact that he describes "tsamba" as "barley meal in a wooden bowl, and washed down with a broth made of butter, salt, and tea twigs," which is surely a very crude and inadequate description of a dish which your reviewer has always found quite appetising!

Baber compares these people with the Lolos to their detriment—and with a good deal of reason. He says that "while intelligent and approachable (they) seem to be an inferior race to the Lolos," and between them it would appeal there is no love lost. He describes their women as "strapping and exuberant queans," although he adds "in general the Si-fan beauties suffer in comparison with their Lolo sisters, who are obviously gentlewomen." The Man-tze, he believes, and I think with reason, to be "the lost aborigines who sculptured the caves on the Min River and other tributaries of the Yangtse . . . . (They) and the I-ren are one and the same people" (although this is often not clear from the Chinese nomenclature). The only distinction he draws being that the latter live in submission to the Chinese Government, and the former on the contrary have never been reduced to subjection—choosing rather to abandon their country than live under a foreign yoke, and have taken refuge in the mountains called Liangshan . . . protected by inaccessible heights, between the provinces of Szechuan, Yunnan, and Kueichou."

Baber thinks Western China should be a favourable field for the study of goitre, and draws attention to its prevalence in the Chien-chang Valley, especially among women, a number of these being "dewlapped like camels." Endeavouring to harmonise the conflicting opinions as to its cause, he says: "If it be assumed that the drinking water of goitrous villages has not merely run through limestone, but has run for a considerable distance through that rock before acquiring its noxious quality (the) solution would seem (to be) simple."

Speaking of the many caves which pierce the sandstone bluffs of Szechuan, he says: "They probably served many uses: they may have been tombs, granaries, places of refuge . . . storehouses, shrines, memorials . . . ." While giving the Chinese view that "they are the caves of the ancient Man-tze," his conclusion as to their origin is an extremely guarded one, viz., that "they are of unknown date, and have been undertaken for unexplained purposes, by a people of doubtful identity."!

This is a rare and distinctive piece of exploratory work. By it the author has made intelligible much that otherwise would still be vague and obscure. He was a studious observer of native customs, and had a practised eye for relevant detail. His notes are judicious and always strictly pertinent. Naturally, when it comes to questions of ethnology the task is one of quite exceptional difficulty. But the conclusions reached may fairly be claimed to be discriminating, and with a very decided balance of probability. In short, these papers contain a wealth of information, adequately and systematically presented, by which the author has placed under heavy obligation all travellers in these and adjacent parts since his day.

### MINYA GONGKAR BY ARNOLD HEIM,

Verlag Hans Huber—Bern—Berlin--1933.

In this interesting and informative book of travel, Heim has made a valuable contribution to the scanty literature dealing with West China and the region popularly known as "Chinese Tibet." The reader is given a detailed and intimate account of two expeditions, the second and more important one being of about nine months' duration, sponsored by the Sunyatsen University and the Geological Survey of Kuangtung and Kuangsi, and under the leadership of Heim. His purpose was to study the mountain formations in the region of the "Red Basin," to investigate into the possibility of boring for petroleum, and to explore the little known high mountain ranges of the Tibetan Border. The author, however, does not confine his activities to geologic and geographic studies, but with an admirable versatility carries the reader into the fields of anthropology, ethnology, botany and zoology.

It is pointed out that a number of scientific papers concerning the expedition have already been published or are in preparation, and that this volume is presented as a popular exposition of the natural science aspect of the undertaking The title—"Minya Gongkar" does not indicate the wide scope of the studies and observations incorporated in the book, but emphasizes only the point of greatest scientific and popular interest—the magnificent peak whose place amongst the highest points of the earth is little realized by the world at large.

With two Chinese assistants, in the summer of 1929, Heim travelled to Chungking by steamer, and thence by motorboat and overland to Chengtu, the capital city of Szechwan. Finding no one at the University because of the holidays, he proceeded northward beyond Kuanhsien to the summer home of the late Dr. Stubbs, formerly professor of Chemistry in the West China Union University. Inspired by Stubbs, Heim spent three weeks in search of a high mountain and glacier which the former had, some time previously, observed from a great distance. Unsuccessful in the search, but having obtained valuable scientific data, the party journeyed to the famed Mt. Omei, climbing to the "Golden Summit." Returning to Kiating, Heim met there J. H. Edgar, the well-known pioneer investigator of Tatsienlu, and a second journey was planned for the following year with the Minya Gongkar as the special goal. He then returned to Canton and had his plans approved by the Sunyatsen University.

On May 27th., 1920, Heim again started for West China with eight assistants for topographical and geological work, including Professor Imbof, topographer of Zürich. They travelled from Canton via Haiphong and Hanoi to Yunnanfu, where a delay of over three weeks upset their schedule, but afforded opportunities for worth-while studies in this area.

Finally travel arrangements were completed and the caravan started northward. On the ninth day they crossed the Yangtse and entered Szechwan. At Haitang, in the Lolo country was caught the first glimpse of the Gongkar, from a distance of approximately 80 kilometres. On the thirty second day from Yunnanfu, the party reached the great T'ong River which gathers its waters from the Tibetan rim, and is the greatest of the Four Streams after which the province of Szechwan is named.

Three days later they crossed the 3000 metre pass which represents the border between Szechwan in a narrow sense and the new province of Sikang (West Land) with its capital at Tatsienlu—the region popularly known as "Chinese Tibet." Although this great area is politically to be distinguished from "Independent Tibet," yet the anthropological, ethnological and geological border between China and Tibet is Tatsienlu itself.

From Lutinehiao on the Tong, they followed an ancident trade route worn with the feet of coolies carrying enormous loads of tea grown in the Yachow region, pressed into large packets and destired for Tibet. Heim describes in detail the hard conditions under which these men labor, often carrying loads of 300 pounds for great distances.

At Wa-ssu Kou they left the T'ong and climbed the magnificent fifteen mile gorge which brought them to the first goal of the journey, Tatsienlu, the Port of Tibet (2600 m). Heim was greatly attracted to the fascinating town, with its fusion of types of people, and its dramatic situation—at the junction of two rushing torrents, and encircled by towering mountains.

Edgar was away in the interior, unaware of the exact time of arrival of the party, but Heim made the acquaintance of Paul Sherap, the hero of G. A. Combe's book—"A Tibetan in Tibet." Sherap is of Tibetan-Mongolian parentage, was formerly a fama scholar, has travelled widely, and had learned to speak English in Darjeeling. Naturally his offer to help and accompany the party was accepted with alacrity.

Giving up as impracticable a half-formed plan of cutting across from Batang to the Upper Yangtse and thence to Sadiya, Heim began preparations for the journey to the Gongkar region. Nine days were spent in Tatsienlu, and the author sagely comments on the value of patience when travelling in the East.

Finally carriers and loads were ready and the expedition left for Yülingkong, almost due south. Here, ten miles from their starting point, they met Edgar and Dr. D. C. Graham (Curator of the Museum of the W.C.U.U.) returning from their journey. Edgar promised Heim that on the return of the latter from the Gongkar trip he would conduct him in November to Litang and from there northward to the earthquake area of Taofu.

With laudable detail and exactness Heim records observations of the flora and fauna observed enroute. He notes the presence, at these high altitudes, of seemingly tropical botanical forms in proximity to high alpine forms, and advances geological speculations on the basis of these and subsequent observations. at Nang-gu (3700 M.) they next day reached the region of the high Tibetan plateaus. Here Heim wrote in his diary with ice-cold fingers, for, although on the valley floor, they were actually higher than the Jungfrau. Following down the incomparable Yülong valley for some miles, they turned eastward over the Tshumi Pass; thence to a lamasery at Gongkar-Gomba directly west of the great Gongkar itself. This lamasery was to be the local starting-point for the study of the great mountain.

There is the fusion of the poet and the scientist in Heim, as is seen for example in the description of his first close-up view of the great peak, as, looking from the West at this 7700 metre summit—"Not so high as Everest but much more beautiful in form" he moulds picturesqe language into a precise description of the small and great glaciers of the west side fusing, at a lower level, into one. Observations with fieldglasses established the fact that

the pyramidal peaks of the Gongkar are of granite.

Disturbing to the continuity of thought, but in conformity with the plan of the book, the author makes frequent abrupt digressions and intersperses keen thoughts on the religious life of the Tibetans and the customs and observances of the lamas.

Then follows a careful study of the layered rubbish of the lower and upper moraines. Heim, with a portion of his party, now divided for greater convenience in travel, proceeded southward to Pawa, but, unable to secure native assistance because of sickness raging in Tienwan (further south) he returned to Gongkar-Gomba, and commenced a circuit about the Gongkar mountain. Delayed for over two weeks by bad weather and other difficulties he went north along the Butshü valley to Dore, sighting, when conditions permitted, other great peaks of the range, and crossed the Ruutsche Pass (4850M.) where to the east could be seen a lesser, but mighty peak, the Djaze-Gongkar (7200M.). Alpine flora, growing at heights above 5000M, were found. Then on to Nangu and Yülongshi again, in the hope of turning southward over the Yatsiaken pass. This road was blocked and it was necessary to return to Heim writes feelingly of his enjoyment of the comforts of life again during the two or three days of rest here.

Journeying southward over the Yatsiaken pass to Liang-Ho-Keo, the party studied the forest areas and luxurious vegetation characterizing the north-eastern Gongkar region; then further south at Lamasze and Mosimien studies and drawings of interesting geological formations were made. Having reached a point due west of the main peak, Heim now turned westward up a side valley to the Yantsoko Glacier, which dominates the northeastern side of the Gongkar. Later similar studies were made of the Hailoko Glacier dominating the south-eastern side, incidentally meeting on the way a herd of nine or ten takin. At this time several hitherto unnamed peaks were named after individuals who had assisted in making the expedition possible.

In common with all explorers Heim encountered frequent difficulties connected with carriers, or animals, or weather conditions, etc. He frankly includes an entry made at this time in his diary—"Satt bis zur Gurgel habe ich dieses Leben": - ("I am

'fed up' to the throat with this life!")

The south end of the Gongkar region was then explored, passing through Wantung, Tienwan and eventually reaching Pawa again. This completed the circuit, the first time, according to Heim, that the Gongkar range had been encircled, and establishing the existence of three main glaciers about the Minya Gongkar—the Gomba Glacier to the west, against the Tibetan highland—the Yantsoko and Hailoko Glaciers to the East—all three explored for the first time by a non-native.

Although this high point builds a boundary wall between China and Tibet all the water of the Gongkar, with all its glaciers, reaches the T'ung river, since even the west stream bends around the mountain and runs eastward. Thus Gongkar does not build the watershed between the T'ung and Yalong rivers.

Under conditions of severe cold and exposure final studies of Mt. Chu and Mt. Tai were made, but weather conditions made futile an attempt to secure a last observation from the ice ridge above Pawa.

The party now returned to Tatsienlu without delay, for all animals had been ordered back there because of the war raging in Ganze. Returning via the Butshii and Yülong valleys, over the Ngatei-la pass to Lotseshi and Tome, thence over the Atia and Tsheto passes to their starting-point, they arrived only one day behind their original schedule.

Due to unsettled conditions, great difficulty was experienced in securing silver. Finally, a part of the group returned to the coast, while Heim, with two assistants, availed themselves of the opportunity of an expedition to Litang and Taofu under the guidance of J. H. Edgar.

Setting out on November 23, in company with a yak caravan, they crossed the Tsheto pass, and traversed the beautiful Nashi valley to Yinkuantshai (3500M.) from which point a superb view of the Gongkar is obtainable. Then followed a strenuous journey over the Drong-gu, Rama Tjeri and Tolo passes to Litang, literally on the roof of the world, the highest town on earth.

While studying the environs of Litang, Heim wondered how long it will be before airplanes reach that remote place. At that time the nearest flying-field was far eastward at Chungking. However, at the time of writing of this review, the air service to Chengtu

is an accepted institution, and word has just come of the proposed inauguration of a Chengtu-Lhasa service!

After a week in Litang the party started on unknown roads to the north in the country of the Nyarong (Hor-ba) to Rino, the town which Bacot in 1909 sought in vain to reach. After crossing four passes, Rino—the "Lhasa" of the Nyarong—was reached, and careful geological and anthropological studies of this fortress town were made. Scaling four more passes, and crossing the Shi river in skin boats resembling the boats of Bagdad, they reached Taofu.

Edgar now conducted the party to the earthquake area at Sharato. This important zone is unknown in literature, save for a a brief report of Edgar's which did not receive credence at the time of publication, and which is not even mentioned in the latest publications on earthquakes in China. Heim, however, was able to fully confirm the accuracy of Edgar's observations regarding the earthquake of March 1923, which was of catastrophic proportions (Intensity 10 of Forel's scale). He likewise confirmed Edgar's view that in this region dislocation and quakes must have taken place hundreds of thousands or millions of years ago.

Studies were also made of the heavy deposits of loess characteristic of the area, and Edgar also conducted the party to a district 4 kilometres southeast of Sharato where he had previously found evidences of an ancient culture. This time he discovered two good examples of paleolithic implements.

(Later consultation with seismographic authorities established the fact that the 1923 earthquake of Sharato was in reality a "world quake").

The new year was spent in Taofu, and the expedition then returned to Tatsienlu through weather intensely cold but free from snow.

Bidding farewell to Edgar, Heim and his party proceeded to Chengtu, thence to Kiating and Chungking, and reached Nanking toward the end of February.

The author's method of romanization of place names is not to be commended; the official romanization, while far from ideal, is intended for international use, and while Heim has obviously modified this to assist the reader of German, he has sometimes distorted the actual sounds.

As one who has traversed in part the regions covered in this book, the reviewer feels that Heim has presented in a very readable form a wealth of valuable information regarding one of the most interesting regions of the earth, and has been able to give to the reader something of the thrill which one feels upon a close-up view of the superb Gongkar. With sympathetic interest, he has studied the life and customs of the people, even transcribing into Western notation some of their songs, and one does not feel any attempt at literary "padding", such as is sometimes encountered in books of travel. An edition in English would be of great value.

The book is profusely illustrated with original photographs, excellent from scientific, technical and artistic standpoints, and the appendices include a section on hints to future travellers in Chinese Tibet; data and sketches regarding all of the important mountain peaks of the area, and an original map of the Gongkar region.

R. GORDON AGNEW

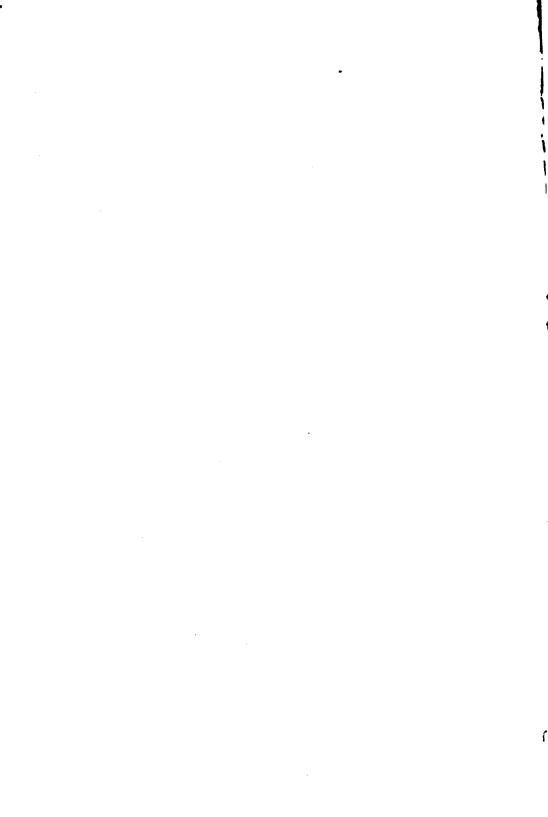
#### BERTHOLD LAUFER

Sinology mourns the passing of Dr. Berthold Laufer of the Field Museum, Chicago, and of the world of Chinese studies. As a collector of significant things Chinese, as a scientific detective, as a collator and correlator of facts as an indefatigable Clue-follower in Chinese and other languages he had scarcely a handful of peers in the world of his day. His "Jade" is a classic, his studies of domesticated plant-migrations as witnesses of Chinese contacts and Asian routes and times are priceless. Both zoology and sinology must turn to these. The picture puzzle of China and the Far East is laid out on a larger scale than it was when he began his studies. He has succeeded inpiecing together a number of significant nucleations in the picture of this jig-saw puzzle.

In the first decade of the century, he visited Chengtu, Yachow, Tachienlu, Derge and Chamdo in company with Mr. Sorensen and other points in the Tibetan Marches. It must have been the word "Szechwan" that always proved the open sesame when the writer asked to see him behind his book barricade. He always asked concerning certain people that he remembered. He asked re a tree-climbing fish of Yachow that he had found mentioned in Chinese books. He was ready to ask the Field Museum librarian to assist in looking up what he did not have at his finger tips. He referred another question to an associate who specialized in miner-The writer will not soon forget his shoulder-shrug and his hand-gesture with up-motion and out-turn of palms as he said "Who knows!" to a question and an expressed doubt as to the truth of the common interpretation of the significance of the two most common items in Chinese design. Not will be soon forget the keen interest in other special things or in other items that tested the metal of his careful knowledge. The expression of his face and the clean-cut words re a shard now in the West China Union University Museum are still vivid: "It is 2000 B. C.!" "You are too conservative." "It is at the very latest 1500 B. C."

The West China Border Research Society cannot claim Berthold Laufer, save as all who are interested in Chinese studies claim him, but we can appreciate his life, pay tribute to his work, and regret his early going.

ms earry going.

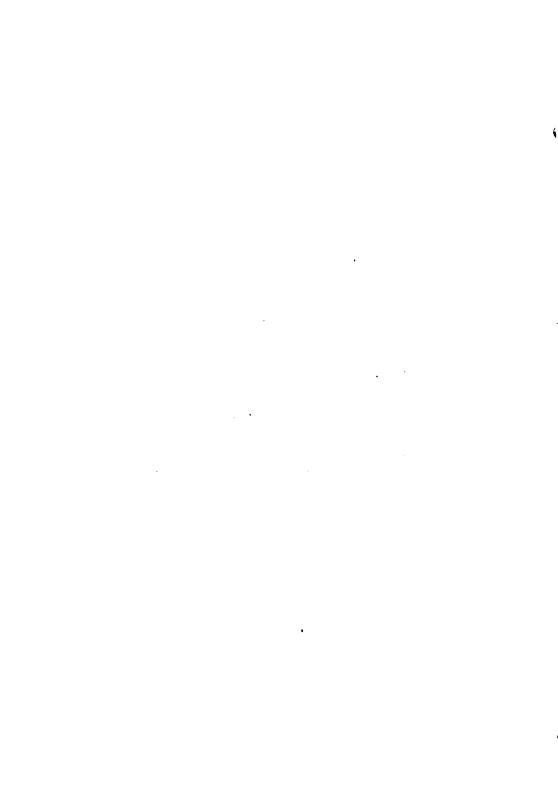


## **PROCEEDINGS**

of the

# West China Border Research Society

1933-1934.



# REPORT OF THE SECRETARY OF THE WEST CHINA BORDER RESEARCH SOCIETY.

During the year the program has included an art exhibit, eight lectures, and the annual business meeting. The art exhibit was held for two days, and the pictures exhibited completely covered the walls of the University chapel and two nearby rooms, and was attended by hundreds of people. The lectures were all well attended. Five lectures concerned the Tibetans and the aborigines and three dealt with phases of Chinese culture.

Twenty-three new members were added. This makes a total

membership of more than one hundred and fifty.

The program of the year was as follows; — (Seeelse where in

this journal).

Of special interest was the reception to the Lamas of Tsagulao. The earthquake last August destroyed the beautiful pagoda at the Tsagulao Lamasery. Thirty-two lamas and lay Buddhists from the borderland therefore came to Chengtu and raised money by repeating the sacred books. The group included two abbots and one assistant abbot. Under the auspices of the Society a banquet was given in honor of these lamas in the gymnasium of Hart College. Including the Lamas there was a total of sixty-five at the banquet. After the banquet the Lamas visited the archaeological museum, with which they were very favorably impressed. While on the campus the Lamas played some very interesting sacred music.

The prospect for a good series of lectures next year is excellent.

Respectfully submitted,

June 9, 1934.

DAVID C. GRAHAM. Secretary.

# REPORT OF THE EXECUTIVE COMMITTEE OF THE WEST CHINA BORDER RESEARCH SOCIETY.

The Executive Committee has held three meetings during the year.

The first meeting was held September, when the program for the year was finally adopted. A balloting committee was elected to pass on the elegibility of new members and to nominate new members.

The second meeting was held on March 29. It was voted to recommend to the society that the President be an ex-officio member of all committees. It was voted that new forms be prepared, for notifying new members of their election to membership, and for requesting members to pay their dues.

The third meeting of the cabinet met on May 31. It was voted that the Education Building be used for most of the meetings, and that curtains be purchased to cover the windows. It was decided to make a bookcase to hold the society's books in the University Library. The committee on life membership reported, and recommendations concerning life membership were adopted. (See minutes of Annual Meeting).

Respectfully submitted,

David C. Graham. Secretary.

### REPORT OF THE EDITOR.

Volume V of the Journal, dated for the year 1932, was published at the end of 1933. This was our first annual volume, and also the largest volume yet issued. It contained 220 pages, being 70 pages larger than the previous volume.

Up to date 307 copies have been distributed to the members of the Society, sold to non-members or sent to libraries of universities and scientific institutions, usually in exchange for their

publications.

Our exchange list is now quite large and valuable. It includes exchanges from China, the United States, Canada, Australia, Great Britain. Russia, Argentine, Uraguay, Sweden, and Spain. Some of the more interesting new exchanges secured during the past year are those with the Royal Society of Canada, the British Museum, the University of Sydney, the North China Branch of the Royal Asiatic Society, the American Geographical Society, etc. An obvious gap in our exchange list is Asia outside of China. Certain societies in India, Hongkong and the Straits Settlements have been written to, but have not yet replied. Members who are acquainted with sister societies in other parts of Asia would do the Society a favor by putting the editor into touch with them.

Volume VI is now in the press. It promises to be as large as Volume V, with just as interesting a series of papers. The results of Dr. Graham's excavations at Hanchow will be described in full, with numerous illustrations. Mr. Donnithorne's investigations into Nestorian remains around Hanchow will also be reported. A number of the papers read before the Society during the years 1933 and 1934 will be included. Prospects are bright for a really good

lot of papers.

The editor would like to bring before the Society the question of reprinting Volume II, which has been out of print for some time, and for which a considerable demand has developed. He hopes that favorable action will be taken, as many of our exchanges are very anxious to secure complete files of the Journal.

Finally, criticisms of the Journal are invited. Any suggestions for improvement will be gladly considered by the editorial committee. Their aim has been to produce a journal that will reflect the activities of the membership of the Society, and will at the same time be of value to scientific institutions in other parts of China and abroad.

### FINANCIAL STATEMENT.

## YEAR 1933-34.

Balance on hand, June 17th, Receipts from membership fe			<b>\$</b> 8.50
44 @ 5	220.00		
30 @ 7	210.00		
2 @ 2	4.00		
•	434.00		434.00
Fees paid in advance, 3 year			15.00
Payments on account of publication			10.00
of the Journal	615.00		
Less credits	195.40		
Dess creates			
	419.60	419.60	
Sundry items on account:			•
Mailing	7.77		
Electric Light	5.00		
Dishes—rent of	1.00		
Pictures	4.10		
Advertising	1.00		
Press account	18.45		
•	37.32	37.32	
Balance on hand	01.02	.58	
	<b>v</b> ., •	457.50	457.50

Respectfully submitted to the Annual Meeting of the Society on Saturday, June 9th, 1934.

W. B. Albertson.

Treasurer.

# MINUTES OF THE ANNUAL BUSINESS MEETING OF THE WEST CHINA BORDER RESEARCH SOCIETY.

### June 9, 1934.

The meeting was held at the Canadian School, beginning promptly at 3 p.m. There was an address on Methods and Equipment for Research on the China-Tibetan border by D.C. Graham. This was followed by the annual address of the president. In this address President Liljestrand gave the names of the noted explorers on the China-Tibetan border up to the present, and told about their explorations and research. Following the addresses, which were in the chapel, the meeting adjourned to the lawn where Mrs. Liljestrand and others served tea. In the chapel there were displayed several valuable books on China and Tibet which have been recently acquired by the West China Union University library. One of these books was Sven Hedin's great work, Southern Tibet.

After tea the meeting was continued on the lawn. The membership committee presented the following names;—Mr. and Mrs. Bookless, Dr. and Mrs. R. M. Anderson, Mr. C. C. Chang, of the Bank of China, Chungking, and Dr. W. M. Gentry of Chungking. These were elected to membership in the Society.

Then followed the secretary's report, which reviewed the program of the past year and stated that a number of good lectures were in store for the following year.

Mr. Albertson gave the treasurer's report, stating that there is now a small balance in the treasury.

The editor's report was given by Dr. Leslie Kilborn. He stated that the sixth volumne is now being sent to the press, and that the exchange list continues to grow. He mentioned the persisient demand that volumne 2 be printed.

VOTED that the reprinting of Vol. 2 be approved providing enough money be secured through subscriptions to pay the bill.

The report of the cabinet was read. Voted that the matter of curtains and the place of meeting be left to the cabinet with power:

Voted that the entire group of cabinet recommendations concerning life membership be adopted. They are as follows;—

1, That members of ten years' standing in the society may compound for \$25.00 additional and secure life membership.

2. That	
Members of five years standing may become life members by	
	\$50.00
Members of 6 years standing may become life members by	
payment of	45.00
Members of 7 years standing may become life members by	
payment of	<b>4</b> 0.00
Members of 8 years standing may become life members by	
payment of	35.00
Members of 9 years standing may become life members by	
payment of	30.00
Members of 10 years standing may become life members by	
payment of	25.00

3. That this plan become operative this year.

4. That during the life of the member the life membership fees be placed in a capital account and the interest only be used for the general funds of the society.

5. That life membership fees be deposited or invested in some

reliable institution.

6. That on the death of a life member the amount paid as a life member shall be removed from the capital account and placed in a special fund to be used at the discretion of the society.

7. That these funds shall be held in the name of the society,

signed by the treasurer and countersigned by the president.

8. That there be a finance committee of three members, the president, the treasurer, and one life member.

The nominating committee presented its report.

Voted that those nominated by the committee be declared elected, and the secretary be instructed to cast a ballot in their favor. Those elected were:

Honorary President J. Huston Edgar. President A. J. Brace. Vice-president S. C. Yang D. C. Graham. Secretary Treasurer W. B. Albertson. S. H. Liljestrand. Member-at-large Leslie Kilborn, Vol. VI, Editors W. G. Sewell, Vol. VII. Auditing Committee G. S. Bell, Beulah Bassett. Editorial Committee L. G. Kilborn, Orlando Jolliffe, D. L. Phelps and W.G. Sewell. The vice-president, the secretary Membership Committee and F. A. Smalley. Nominating committee J. E. Lenox, W. Crawford and J. Neave.

A hearty vote of thanks was passed to Dr. L.G. Kilborn for his excellent work as editor of the Journal. Voted that hereafter it be the general policy of the society that the vice-president of one year be the president on the next year, and that the president one year be the president-at-large for the following year, thus giving continuity.

President-elect Captain A. J. Brace made a short speech of acceptance saying that he would do his best to promote the interests of the society, and greatly appreciated the honor.

A vote of thanks was passed to Mrs. Liljestrand and the other ladies who prepared and served the tea.

Respectfully submitted,

DAVID C. GRAHAM,

Secretary,

# METHODS AND EQUIPMENT FOR RESEARCH ON THE CHINA TIBETAN BORDER.

#### D. C. GRAHAM.

The society under whose auspices we are meeting today was founded in 1922 in order to promote research—to study the country, the peoples, the customs, and the environment of West China, especially as they affect the non-Chinese. It has welcomed into its membership those who are interested in research. It has published a journal so as to preserve and make known the results of the research of its members. Under its auspices nearly a hundred lectures have been given, some of which have been of great interest and value. Its membership has grown from fourteen at the end of the first year to more than one hundred and fifty. It is a fellowship of men and women who are interested in research, believe in it, and encourage each other towards its accomplishment.

Today research is recognized as the highest attainment of education. That is, the best fruits of education are the discovery of new truth and the training of men and women who can successfully carry on the process. In the University of Chicago the only degree that carries with it the gift of the university hood is the degree of Doctor of Philosophy, which is a research degree. This is in re-

cognition of the supreme value of research.

But I need not argue with you today as to the value of research. The fact that you are members of this society and attend its meetings is evidence that you appreciate its value. There are many who would like to do research, but who either do not have the time or feel that they do not know how.

It is not possible to cover completely, in this lecture, the methods of research. In education there are recognized at least eight major methods, each with its special techniques and with its strengths and weaknesses. They are the survey method, the case study method, the psychological method, the historical method, the questionaire method, the interview method, the statistical method, and the experimental method. These are explained in books in the University Library, and these books will repay careful reading and study. Moreover, there are numerous branches of science each of which has its own special methods of research which must be carefully learned if one is to do successful research in that branch of science. Among these are physical anthropology, botany, natural history, paleontology, philology, geology, chemistry, physics, and archaeology. It seems best to use our time today in stating some general principles that are of rather wide application,

and then to give a few suggestions as to methods of research in religion and in archaeology, two branches of science in which I have been especially interested.

First, it is important that we use the objective rather than the subjective method. Speaking of the spirit of research, Dr. Dewey says, "Louis Pasteur exhibited that attitude, and he was always as nearly an incarnation of the scientific spirit as the world will ever see. When the reverberations of his painstaking research disproving spontaneous generation had attracted the attention not only of scientists but of people generally and had seemed to destroy the foundation of their pet theories, derived they knew not whence, he spoke to them in a language they could hardly understand. Instead of taking the attitude of one who would support a philosophical theory he said; "It is a question of fact; when I took it up I was as ready to be convinced that spontaneous generation exists as I am now persuaded that those who now believe it are blindfolded."

The attitude here described is called the objective method, and it is of primary importance in scientific research. It means to beware of starting with a theory to prove, and then mustering facts and data from all sources to prove the theory—a method that is called the subjective method. Great scientists of the early days began with theories to prove, with marvellous diligence they searched over much of the world in order to find data to support their theories, then arranged the evidence gathered so successfully that they convinced most of the world that their theories were true. Since then the facts have had to be gone over again, their main theories have been disproven, and today the subjective method is discredited among scientists. Start with no theories, learn all the facts, then let the theories grow out of the facts as hypotheses, which may be further altered or even discarded if a more perfect understanding of the facts makes it necessary. No theory should be accepted just because a great writer has held it. Question all theories, investigate the facts, and then let your theories be those which seem best to explain the facts that have been learned.

The world once believed, and many still do, that the summer floods of the Yangtse River and its tributaries are due to the melting of snow on the high mountains of Tibet. Mr. Edgar questioned it, investigated it, and has proved that these floods are due primarily to heavy summer rains.

Years ago both Chinese and foreigners believed that the many artificial caves in Szechwan Province were made and used as dwellings by pre-Chinese aborigines. Mr. Torrance questioned it. He asked himself, "What if these were not dwellings, but cavetombs?" He carefully investigated, and the evidence showed that they are Han Dynasty Chinese cave-tombs. No good evidence has been found to the contrary. Today all the scientific archaeological books agree in calling these caves Han Dynasty Chinese cave-tombs, and they mention Mr. Torrance as the pioneer who first made the discovery.

Second, before beginning a work of research it is advisable to read everything important that has been written about the subject. in this way one can avoid advancing as his own theory what somebody else has already discovered. One can begin where others left off, summarize what others have written by way of introduction, and give a full and careful statement of his own contribution. In this way the value and interest of the work will be enhanced, and such a preparation enables one to better see and appreciate the things that are important.

A third suggestion is that it is generally wiser for a person to carry on research in the branch or branches of knowledge in which he is best informed. The man who has made a life-long study of geology is most likely to be a success in geological research. The one who has spent years in the study of the anatomy of the human body and of kindred subjects is likely to be successful as a physical anthropologist. It is not probable that I could do worthwhile research in botany, for my knowledge of botany is quite limited. In contrast, Dr. Joseph Rock has spent his life in the study of botany, has spent many years in field research, his discovered many new species of plant life, and has made a large contribution to scientific knowledge.

A fourth suggestion is that important contributions through research to human knowledge are not generally achieved without the expenditure of much time and thought, often through a long period of years. Louis Pasteur spent six years in experimenting before he was able to disprove the theory of spontaneous generation. Coming a little nearer home, the contributions of Mr. J Huston Edgar about the history and social customs of the China-Tibetan borderland, and his revelations about the stone implements, are the results of fully twenty years of observation and study. The same is true of Torrance's contributions about the Ch'iang people and about the Han dynasty Chinese cave-tombs. Mr. George M. Franck's studies of Szechwan moths and butterflies have been carrried on for about two decades, and the same is probably true of Prof. Dye's researches on Chinese lattice work and Dr. Morse's work in physical anthropology. Occasionally there are accidental discoveries of truth that are of permanent value, but generally the most important achievements take a great deal of time, and are often years in reaching fruition. Patience and persistence have their place in successful research.

A fifth suggestion is to take notes, copious, and, so far as possible, immediate and complete. The following quotation is from Notes and Queries on Anthropology, published by the Royal Anthropological Institute—

"One need for anthropological as for any other king of scientific work is so preeminently important that it must be stated before any other. It is the necessary foundation for all trustworthy work, and is so obvious that it would seem unnecessary to state it if it were not for the fact that there is probably nothing so frequently neglected

by those whose opportunities for work are greatest. This is the need for immediate and full note-taking. It may be possible to write down from memory vague and general accounts of customs, ceremonies, and institutions, but that exact and full knowlede which is essential to the anthropologist of today is only possible to one who records fully and immediately the information given to him by those with whom he is working. The value of note-taking is so generally acknowledged in science that it may seem superfluous to go into the matter at greater length, but it may be pointed out that it is necessary not only to record the actual information received, but also, as far as possible, the setting in which it was obtained, and especially the names of the informants. It is surprising to find how conditions so important, and at the same time so familiar, that they might be expected to be permanently imprinted on the mind, will be found to have been forgotten, or to have faded, if they have not been recorded."

A sixth suggestion is, take numerous pictures, and make drawings and maps. We quote again from Notes and Queries on Anthropology —

"Further, the written notes should be accompanied by all such records as can in any way promote their exactness and clearness. The place of photography hardly needs mention, but the value of sketches to bring out the essential features of a scene or structure may be especially mentioned. Plans and maps should be made whenever possible, and plans and detailed drawings of buildings and other structures should be accompanied by a record of their dimensions."

In January, 1931, it was my privilege to spend an hour alone at the tea table with the great author and explorer, Sven Hedin. During my visit he showed me his latest book on Tibet, consisting of nine large volumes. The book was copiously illustrated by drawings, photographs and colored paintings by the author himself. I marvelled at the genius and diversity of this great man.

Seventh, it is important that we be friendly, sympathetic, and appreciative towards the people whom we are studying. A superiority complex, or a hostile or condescending attitude towards the customs and ideals of the people will cause them to shut their mouths like clams, or to deliberately give false information. We should check up the statements of one informant by those of others in the same and in other localities.

In the study of native religions, care should be take to avoid offending the susceptibilities of the people. One should guard himself against the point of view that looks upon unfamiliar native customs as hideous or preposterous. All native religions and attempts to secure the cooperation of unseen powers or forces in order to solve real life problems or to satisfy human needs, such as the healing of disease, food, protection from enemies, descendants, and a happy and satisfying life. Every native custom, if investigated in an unbiased way will be found, in the minds of the natives, to help satisfy such a human need. Other religions should be studied sympathetically, and with a just appreciation of all that is

beautiful, noble and good. One should learn all he can about the lives, the environment, and the history of the people he is studying. Often this will enable him to see that the strange custom seems perfectly natural and reasonable to the people who practice it.

It is sometimes advisable to write out a list of questions that one would like to have answered. Questions should be asked so as to avoid suggesting the answers wanted or expected. Orientals it is often possible to get just the answer that the ques-The native is polite, and he like to please. tioner wants. be wise to frame the question as though the enquirer believed that the opposite were true, and to conceal the enquirer's own opinions. The aim should be to find out what actually in the minds of the natives.

Religious life is often very complex, and to understand and interpret it is not always a simple and easy task. It is quite possible to neglect some phases and over emphasize others so as to get a distorted picture. They geography, the history, and the physical and social environment should be studied, for they may throw much light on religion. Other phases that should be studied are. the conception of the soul, demons, their conduct, and how they are controlled or exorcised, the ancestral cult, and the world after death; the conceptions and practices connected with birth, marriage, death, and burial; such basal conceptions as yin-yang and fengshui, and the mana concept; incantations, charms, and amulets; sacred objects used in religious worship and ceremonies; religious ceremonies and festivals; divination, lucky days, vows, prayers, incantations, sacrifices, and worship; temples, shrines, holy mountains, and sacred woods; priests and shamans, and the gods.

Archaeology is a science with methods as exact as medicine and dentistry. Given the techniques, the instruments, and the experience, delicate and fragile vessels can be repaired and preserved, and important chapters of history can be recovered. a person without a knowledge of archaeological methods to open a site or to attempt to do archaeological excavation is like tearing up valuable chapters of history that might be found nowhere else, and which can never be recovered. If a person without archaeological training finds an important site that should be excavated, the best service he can render humanity is to protect the site from digging until the arrival of a trained archaeologist. But sometimes, through the construction of roads, the erection of buildings, or the digging of wells, rich sites are opened when the help of an archaeologist can not be secured. It is then right for a person without the technical training to take charge and to do his best to preserve the materials and the records.

The following suggestions are offered for use in case it is necessary for a person to act in order to preserve a site from partial or complete destruction.

If possible, photograph the site and draw a map of it be-

fore the excavating begins. Any important details can later be filled in on this map.

2. Have a field note-book, and keep a record of everything done, and every object found, giving a description of the article,

with its depth and position.

3. It is advisable, before excavation, to stake off the the plot in five-foot squares, each stake having a number, and each square having the number of the stake on the lower right-hand corner. Record the square in which each object is found, and the depth.

4. Each object should be given a number according to its succession. The number should be plainly written on the object, and also in the record book with all the information about the

object that can be gathered.

5. Begin digging at one edge of the site. Dig a trench five feet wide between the first two lines of stakes. Throw the dirt away from the site. Dig down well below any signs of human culture. Then dig the next trench five feet wide, and so on through the site.

6. Note carefully each stratum, and record accurately what is in each stratum, and the relative positions of the different strata. This is important, for the lowest strata are of course the oldest.

- 7. Do not pull objects out from the side. Dig down widely from the top, and leave each object in place until you are sure whether or not this is one of a group of objects, such as an ancient fireplace.
- 8. Pack very carefully. Never pack fragile and heavy objects together.
- 9. In important sites, preserve everything that shows human workmanship, even broken pieces of pottery.
- 10. The best place for archaeological objects is in an archaeological museum, where they can be preserved for future generations.

No suggestions as to equipment for research on the China-Tibetan borderland can be perfect and infallible. The equipment one needs varies according to the locality, the season, personal tastes, and the kind of research that is to be done.

It is said that an army fights on its stomach. A traveller on the China-Tibetan border can not neglect his stomach. Bread will generally mold after a few days unless it is made into zweibach. Cookies generally do not mold, and often fill in a crevice in an empty stomach. Plenty of sugar and salt should be provided, and plenty of butter and milk should be taken along. Fresh butter and milk can be bought, at Tatsienlu, but not among the Ch'iang. Local fruits can generally be bought in the markets and are edible if well-cooked and sweetened. On the highlands of Tibet almost nothing can be bought but tsamba, butter, cottage cheese, milk and meat. At all times a good, resourceful cook who can take hard knocks is a god-send.

In some places tents are a necessity. Few would want to do without camp cots. On the highest altitudes, even in summer, a person needs more warm clothing than in Chengtu during the coldest winter days. It is necessary to be well prepared for hard rains. Sometimes it pours for several days, and at other times there are sudden and unexpected cloudbursts almost out of a clear sky. Lanterns and flashlights are indispensable, as are also small cameras, or kodaks, notebooks, and paper for drawing and notetaking. Pedometers, binoculars, and aneroid barometers are useful. One should take plenty of gifts for Chinese and for aborigines, and picture cards for the children, for a gift is an oriental way of displaying and securing good will and friendship. No person should travel on the China-Tibetan borderland without a good supply of medicines.

Finally, there are three organizations in West China that can greatly help a person who is doing research work. The first is the library of the West China Union University. It contains many of the books and magazines that are most useful for research in West There is a surprise for almost every one who takes the pains to find out the number of useful and valuable books and magazines that are available in this library. The second is the West China Union University museum or museums. In the Archaeological Museum, the Medical-Dental Museum, and the Natural History Museum are being preserved the objects and records that are necessary for research, so that more and more a person who desires to do useful research in West China will find it worth while, and sometimes a necessity to make use of the University Museums. The third is the West China Border Research Society. In it we find the fellowship and inspiration of a society composed of a group of men and women who are awake to the opportunities in West China. and appreciate the value of new truth and new discoveries. It gives us an opportunity to hear the lectures of others engaged in research. and of reading their articles in its Journal, and the Journal of the West China Border Research Society is rapidly finding a place in many of the best libraries and Scientific organizations in the world.

### LIST OF MEMBERS

Since the expansion of membership in the Society has taken place no complete list of members has been published. It is desirable that this record should be as complete and as accurate as possible. If there are errors in the following list, members of the Society are requested to notify the secretary, so that the next list may be entirely accurate.

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## INDEX.

Α.	Be-bo .44
A-Ba-Ch'i (Ch'iang Deity) 25	b'Dewa Chan 253, 255
Abba Chee 36, 44, 45	Bees 26
Abba Malah 39	Beetles 142-161
	Bela Szechenyi, Count ix
	Bema, feast of 255
21300	Bhutan 248
	Bhutias 3, 4
Ai Kuo Shae 69	Birds 106, 132
Akas 52	Blood, in Ch' iang worship 40, 44
Al-Biruni 256	
Altars 32, 33, 35, 36	Bokara 219 Bo-Lo-Tze (see also Po-lo-tse) 111
Amitabha 253	
Amphibians 143, 144	33.7.1
$\Lambda$ mundsen $\mathbf{x}$	Book Reviews
Anatomical specimens 137	A. Hosie: Szechwan, its Pro-
Andersson, J. G. 128	ducts, Industries and Re-
Angels 46	sources. 263
Animists 42	W. R. Morse: The Three
An Luh Shan 222, 223, 227, 230	Crosses in the Purple Mists.
Anyang, excavations 128	264
Arbors, The 139	A. J. Brace: Tu-Fu, China's
Archeology specimens 135	Great Poet 266
Armour, Ch'iang leather 13	E. Teichman: Travels of a
Arrow, brazen 44, 45	Consular Officer in Eastern
Art specimens 135	Tibet. 267
Artifacts 30, 57-61	J. H. Edgar: High Altitudes.
glass 138	269
Assmy, Dr. x	The Nosu Tribes of West Sze-
At'e 58	chwan 270
	E. C. Baber: Travel and Re-
23.08	searches in the Interior of
	China. 272
	A. Heim: Minya Gongkar. 278
<b>Axes</b> , stone 58-60, 121	Boomerang 60
В.	Border, Tibetan 81, 87107, 113
Baber, E. C. 17, 19	Borer, stone 123
See Book Reviews	Botanical specimens 136
Badi 201	Bow 45
Butt	Bowles, G. T. 57
25111103,	27.5 (1.10.)
2-11-11-16	
	Boxer Rising 20, 74 Brace, A. J. See Book Reviews
Basalt 29, 60	
Bawang 201, 249, 250	
Beads, jade 118	
Bear, black 26	Bride, Ch'iang 47

Bridge, single rope 14	Ching Chiao, see Nestorianism
Bronze mirrors 35	Chingchi Hsien 28
Bronzes · 105	Ching Fuh Yuan 216, 237
Brooke xii	Chisels, jade or stone 121-123
Buddha 253, 254	Christianity, and religion of the
Buddhism 17, 219, 220, 256	Ch'iang 37, 46, 47
Burial, Tibetan 11	early in Szechwan 208-244
practices, ancient 118	also see Nestorianism
Butterflies 26, 132	Chuan Pien 71
of Szechwan 162-195	Chungking 73, 86, 89 148, 163
~	
C.	Church of the East 213 Chrysomelidae 142-160
Cameron, Dr. x	Clubs, stone 60
Canaan 31	Coffin, Ch'iang 47
Canaanites 32, 34, 46	Coin tree 106
Cannibals 29, 52, 61	Collecting trip 24, 142
Castles 29	Collier, H. B. 124
Cave tombs 105	Combe <b>254</b> -256
Ceremony, Ch'iang religious 37,	Constitution, Chinese 64
44	Consuls, and revolution 89
Ch'a Ch'ie 57, 59	Cooper viii
Chag La 54	Coracle 30
Ch' ang An 219, 224, 226, 229	Cores, stone 59
Chang Hsien Chong 88	Crater, meteorite 28
Chanting, Ch'iang 41, 44	Crucifixion, in China 12
Chang Hisen Chong Chanting, Ch'iang Chao Er-Feng Chao Er-Hsuin Chao Er-Hsuin Chao Er-Hsuin Chao Er-Hsuin Chao Er-Hsuin 65, 71 Chara	Crustaceans 144
Chao Er-Hsuin 65, 71	Crystal 60
01.111.11	Custom, persistence of 105-106
Chen Gin-hsuan 208	Cypress incense 43-44
Chen, S. H. 148	<b>T</b> D
Ch'en T'ao-Hsieh 227	D.
Chengtu 71-78, 81, 84-89, 148,	Dalai Lama 253, 255-257
163, 216, 221, 223, 229	Dampa Rong 249
Cheo Dynasty 105, 119, 129	Dampa Rong 249 Dance, Ch'iang 25 Dance Davil (Tibetan) 11
Chert 60	Dance, Devil (Tibetail) 11
Cheto 56, 57-58	Dance, religious ceremonial 18
Ch'iang, The 13, 14, 22, 24, 62,	Darjeeling 1, 2, 5 Dark (Darkness) 253-255
247	Dark (Darkness) 253-255
language 31, 249, 258	Darwin 63
pottery 27	David, Pere ix
religion 13, 31-48 villages 13, 24, 25	Dawo 249
,,	Death, Ch'iang 47
Chiarung, see Giarung	Death's Head 38
Ch'i Chih (newspaper) 72	
Ch'ien Long, Emperor 41 Ch'i Hsien Ts'i 214	Dental specimens 137
	Deity, Ch'iang 33
China Inland Mission Atlas 50,	Demons 61, 254
Chinese Independent Party 69	Demon worship 17, 42
- Comese independent Party - 69	Des Godins ix

"Descent of Man" 63	Fishes 142
Deuteronomy 32	Flies 26
"Devil Dance" 11	Flint tools 63
Dickinson, F. xiii	Foreign Office (Szechwan) 83, 89
Diorite 59, 60	Forest, Dr. xii
Disks, stone and jade 122, 123	Forests in Sze. in T'ang
Dmur'do 61	Dynasty 234
Dong Men Wai 25	Franchise, Railway 70, 75
Donnithorne, V. H. 114	Franck, G. M. 132, 162
Dorje, in treating disease 15	French Consul (Chengtu) 89
Dra Yul 50	French missionaries 50
of Ch'iang priests 43	Fu Ku Hue 69
Dress, primitive 30	Fupien 57, 59
Drugs 136	
Drum 106	G.
Du Halde 51, 245	Gabet viii
Duke Fang, see Fang Kung	Game in Szechwan in T'ang
Dwan Kung 112	Dynasty 234
Dye, D. S. xiii, 119, 121	Garlie 43
	Geological specimens 136
E.	Geology 57
Earth, worship of 119, 121	Genghis 225
Earthquake 26	Gerbillon, P. 245
Edgar, J. H. x, xi, xii, xiii, 139	Ge Shi Tsa 249
also see book reviews.	Giarung 31, 205, 250, 258
Educational Board of Sze. 115	Gill, Capt. ix
Elephants 235	Glacial ages 57
Eluths 245	Glacier 26, 58, 60, 61
Empress Dowager 66	Gnatong 6, 7 Gneiss 60
Ethnology specimens 135	
Everest 1	Gnostic cults 253
Evil eve 42	God, Ch'iang ideas of 33, 34,37,
Excavations at Hanchow 114-131	41, 44-47
at Anyang 127	Goitre 196-207, xviii
Exoreism 42, 109	Classification 202-205
12, 200	Economic factor 205-207
F.	Theories 198-202
	Gold Rivers District and goitre
,	196 Calala buigan la 10, 17
Fan, The 247 Fang Hsuan-lin 210-212	Golok brigands 16, 17
	Gong Kar, see also 54, 55
	Minya Kangka
Fang Kuan, see Fang Kung Fang Kung 208-244	Graham, D. C. 162, 212, xiii
Fang Kung 208-244 Father Spirit (Ch'iang) 36	Grainger, Adam xiv
Fengshui (Chrang) 50	Granite 57, 59, 60 Grave objects 119
Fengtion 128	Grave Objects 119 Grave spared 29 25 26 29 40
Ferguson xii	Grove, sacred 32, 35, 36, 38, 40,
Festivals, Ch'iang religious 39	Gun 48, 44, 45.
resurans, on rang rengious 59	Gun 44

H.   Hubbard, Prof.   Xiii   Huc, Abbe   Xiii, 107   Hammers, sledge (stone)   122   stone   60   Hwa-in-shan   148   Hanchow, Szc. 63, 226, 229, 231   Hwa Yang Hsien   69   Hwa-yang Hsien   72   223   Han Dynasty 35, 105, 124, 129   Hanlin Yuan   220   Images   32   Han Yu   210, 211   Hart, Virgil   x   X   Harvard-Yenching Institute 130   135, vi, foreword.   Hard-man   110   Head-man   110   Head-man   110   Heavenly Spirit (Ch'iang)   36   Iodine   197   Hebrews   31, 34, 39   Iron   61   Hwertebrates   144   Heavenly Spirit (Ch'iang)   36   Iodine   197   Hebrews   31, 34, 39   Iron   61   Hwertebrates   144   Heavenly Spirit (Ch'iang)   36   Iron   61   Hwa-yang Hsiang   21   Invertebrates   144   Heavenly Spirit (Ch'iang)   36   Iron   61   Invertebrates   144   Heavenly Spirit (Ch'iang)   36   Iron   61   Invertebrates   144   Invertebrates   144   Invertebrates   142   Invertebrates   144   Invertebrates   144   Invertebrates   145   Invertebrates   144   Invertebrates   145   Invertebrates   144   Invertebrates   145   Invertebrates   145   Invertebrates   144   Invertebrates   144   Invertebrates   145   Invertebrates   145   Invertebrates   144   Invertebrates   145   Invertebrates   145   Invertebrates   144   Invertebrates   145   Invertebrates   144   Invertebrates   145   Invertebrates   144   Invertebrates   145   Invertebrates   145   Invertebrates   145   Invertebrates   145   Invertebrates   145   Invertebrates   145   Inverteb	Gyal Rong	247, 248	Huai I	225
Hammers, sledge (stone)   122   122   123   144   131   144   131   144   131   145   14	Gym Rong	211, 210		
Hammers, sledge (stone)   122   125   136   148   14	Н.			
Stone   Go   Hwa-in-shan   148	Hammers, sledge (s	stone) 122		
Hanchow, Sze. 63, 226, 229, 231   Hwang Hsin   Chih   223   Hwa Yang Hsien   72				148
Chih         223         Hwa Yang Hsien         72           excavation at golden age in         208-244         I           Han Dynasty 35, 105, 124, 129         Ichang         70           Hanlin Yuan         220         Images         32           Han Niu         29         Implements, stone         58, 60, 123.           Harty Virgil         x         Incentations         15           Harvard-Yenching Institute 130         Incentations         15           Head-man         110         Incense, Ch'iang         43           Head-man         110         Insects, aquatic         142           Heavenly Spirit (Ch'iang)         36         Iodine         197           Hebrews         31, 34, 39         Iron         61           Hebrews         31, 34, 39         Iron         61           Heh Shui Tribe         109         meteorite         60           Heim, Arnold         xiii         see Book Reviews         111           Hemry, Prince, Duc d'Orleans x         Incentations         15           Henry, Prince, Duc d'Orleans x         Incenteites         32-34, 36           Issu         224-226         Izd-buzid         224           Hoinally		226, 229, 231		69
exeavation at golden age in   208-244   Han Dynasty 35, 105, 124, 129   Ichang   70   Images   32   Images   34   Images   Images   34   Images   Images				72
Golden age in   208-244   Han Dynasty 35, 105, 124, 129   Ichang   70   Fanlin Yuan   220   Images   32   Implements, stone 58, 60, 123.   Han Yu   210, 211   Hart, Virgil   x   Incantations   134   Incantations   135   Incense, Ch'iang   43   Incense, Ch'iang   43   Incense, Ch'iang   43   Incense, Ch'iang   44   Incense, Ch'iang   43   Incense, Ch'iang   44   Incense, Ch'iang   45   Incense, Ch'iang   46   Incense, Ch'iang   47   Incense, Ch'iang   48   Incense, Ch'iang   160   Incense   160   Incense, Ch'iang   160   Incense   160   Incens		114-131	20	
Han Dynasty 35, 105, 124, 129   Ichang   70   Images   32   Images   3			I	
Hanlin Yuan			Ichang	70
Han Niu			•	
Han Yu       210, 211       134         Hart, Virgil       x       Incantations       15         Harvard-Yenching Institute 130       Incense, Ch'iang       43         Head-man       110       Insects, aquatic       142         Head-man       110       Insects, aquatic       142         Heavenly Spirit (Ch'iang)       36       Iodine       197         Hebrews       31, 34, 39       Iron       61         Hebrews       31, 34, 39       Iron       61         Heim, Ainold       xiii       Israclites       32-34, 36         Henry, Prince, Duc d'Orleans x       Izd-buzid       224-226         Henry, Prince, Duc d'Orleans x       Izd-buzid       224         Heofan       111       Jacob       34         Hishorical Records, reliable 248       knife       105, 117, 118         Historical Records, reliable 248       knife       114, 121         untrustworthy       233       sword       119         Ho Kow       58, 250       Jadeite       122         Hor, The (People)       249       Japan       219         Hor, The (People)       249       Jebovah       33, 34, 35         Hesior, Sir Alexander		29		e 58, 60, 123,
Hart, Virgil		210, 211		134
Harvard-Yenching Institute 130   135, vi, foreword.   Head-man   110   Insects, aquatic   142   Insects, aquatic   142   Insects, aquatic   142   Insects, aquatic   144   Insects, aquatic   142   Insects, aquatic   144   Insects, aquatic   144   Insects, aquatic   145   Insects, aquatic   146   Insects, aquatic   147   Insects, aquatic   148   Insects, aquatic   149   Insects, aquatic   149   Insects, aquatic   149   Insects, aquatic   149   Insects, aquatic   140   Insects, aquatic   142   Insects, aquatic   142			Incantations	15
Head-man		Institute 130		43
Head-man				219
Heavenly Spirit (Ch'iang)   36   Hebrews   31, 34, 39   Iron   61				142
Heavenly Spirit (Ch'iang)   36   Iodine   197     Hebrews   31, 34, 39   Iron   61     Heh Shui Tribe   109   Incteorite   60     Heim, Arnold   xiii   Israelites   32-34, 36     see Book Reviews   I-su   224-226     Henry, Prince, Due d'Orleans x     I-su   224-226     Izd-buzid   224     Izd-buzi	Heaven, worship of	119, 121		144
Hebrews	Heavenly Spirit (C	h'iang <b>)</b> 36	Iodine	197
Heh Shui Tribe         109         meteorite         60           Heim, Arnold         xiii         Israclites         32-34, 36           see Book Reviews         I-ssu         224-226           Henry, Prince, Duc d'Orleans x         Itesu         224           Henry, Prince, Duc d'Orleans x         Itesu         224           Hind         253         Jacob         34           Hind         Sec         Jacob         34           Historical Records, reliable 248         knife         114, 121           Misor         Second         Jade         105, 117, 118           Knoife         Second         Jadeite         122           Honan         128         Japan         219           Hor, The (People)         249         Jehovah         33, 34, 35		31, 34, 39	Iron	61
Heim, Arnold   see Book Reviews   I-ssu   224-226     Henry, Prince, Due d'Orleans x   Heofan   111     Himalaya   2, 113   Hindus   253   Jacob   34     High Place, Ch'iang   36   Jade   105, 117, 118     Historical Records, reliable   248   knife   114, 121     untrustworthy   233   sword   119     Ho Kow   58, 250   Jadeite   122     Honan   128   Japan   219     Hor Ch'u (River   51   Japanese   258     Hor, The (People)   249   Jehovah   33, 34, 35     Hosie, Sir Alexander   201, x   Jesus   38, 255, 256     see Book Reviews   Johanson   xii     Hsiang T'an   232   Johanson   xii     Hsiang Tsan   18, 19   John, Prestor   245     Hsi Fan   18, 19   Johnstone, Sir Reginald   x     Journal of the W.C.B.R S.   v     Jui Tsung, Emperor   225     Kalimpong   8-11     Hsiong Niu   247   Kangehenjunga   3     Hsuan Tsang, Emperor   219   Kang Kang Chai   107-108     Hsuan Tsung, Emperor   217-   Kansu   223	Heh Shui Tribe		meteorit <b>e</b>	60
See Book Reviews		xiii	Israelites	32-34, 36
Henry, Prince, Duc d'Orleans x   Izd-buzid   224     Heofan	see Book Reviews		I-ssu	224-226
Heofan			Izd-buzid	224
Hindus 253 Jacob 34  High Place, Ch'iang 36 Jade 105, 117, 118  Historical Records, reliable 248 knife 114, 121  untrustworthy 233 sword 119  Ho Kow 58, 250 Jadeite 122  Honan 128 Japan 219  Hor Ch'u (River 51 Japanese 258  Hor, The (People) 249 Jehovah 33, 34, 35  Hosie, Sir Alexander 201, x Jesus 38, 255, 256  see Book Reviews Jew 31, 112  Hsiang T'an 232 Johanson xii  Hsiao Kin 57, 59 John, Prestor 245  Hsi Fan 18, 19 Johnstone, Sir Reginald x  language 17 Journal of the W.C.B.R S. v  Hsi-Kang 63 Jui Tsung, Emperor 225  prehistortic remains in 56-61  Hsi Ning, Emperor 235  Ilsin Yen-en 227 Kalimpong 8-11  Hsiong Niu 247 Kangehenjunga 3  Hsuan Tsang, Emperor 219 Kang Kang Chai 107-108  Hsuan Tsung, Emperor 217-		111	_	
High Place, Ch'iang         36         Jade         105, 117, 118           Historical Records, reliable 248         knife         114, 121           untrustworthy         233         sword         119           Ho Kow         58, 250         Jadeite         122           Honan         128         Japan         219           Hor Ch'u (River         51         Japanese         258           Hor, The (People)         249         Jehovah         33, 34, 35           Hosie, Sir Alexander         201, x         Jesus         38, 255, 256           see Book Reviews         Jew         31, 112           Hsiang T'an         232         Johanson         xii           Hsiao Kin         57, 59         John, Prestor         245           Hsi Fan         18, 19         Johnstone, Sir Reginald         x           Isi-Kang         63         Jui Tsung, Emperor         225           Isi-Kang         63         Jui Tsung, Emperor         225           Isin Yen-en         227         Kalimpong         8-11           Hsiong Niu         247         Kangehenjunga         3           Hsuan Tsang, Emperor         219         Kang Kang Chai         107-108	Himalaya	2, 113	J	
Historical Records, reliable 248 untrustworthy 233 sword 119     Ho Kow 58, 250   Jadeite 122     Honan	Hindus	253	Jacob	
untrustworthy         233         sword         119           Ho Kow         58, 250         Jadeite         122           Honan         128         Japan         219           Hor Ch'u (River         51         Japanese         258           Hor, The (People)         249         Jehovah         33, 34, 35           Hesie, Sir Alexander         201, x         Jesus         38, 255, 256           see Book Reviews         Jew         31, 112           Hsiang T'an         232         Johanson         xii           Hsiao Kin         57, 59         John, Prestor         245           Hsi Fan         18, 19         Johnstone, Sir Reginald         x           language         17         Journal of the W.C.B.R S.         v           Hsi-Kang         63         Jui Tsung, Emperor         225           prehistortic remains in 56-61         K         K           Hsi Ning, Emperor         235         K           Hsiong Niu         247         Kangehenjunga         8-11           Hsuan Tsang, Emperor         219         Kang Kang Chai         107-108           Hsuan Tsung, Emperor         217-         Kansu         223	High Place, Ch'iang	g 36	Jade	105, 117, 118
Ho Kow         58, 250         Jadeite         122           Honan         128         Japan         219           Hor Ch'u (River         51         Japanese         258           Hor, The (People)         249         Jehovah         33, 34, 35           Hosie, Sir Alexander         201, x         Jesus         38, 255, 256           see Book Reviews         Jew         31, 112           Hsiang T'an         232         Johanson         xii           Hsiao Kin         57, 59         John, Prestor         245           Hsi Fan         18, 19         Johnstone, Sir Reginald         x           language         17         Journal of the W.C.B.R S.         v           Hsi-Kang         63         Jui Tsung, Emperor         225           prehistortic remains in 56-61         K         K           Hsi Ning, Emperor         235         K           Hsiong Niu         247         Kalimpong         8-11           Hsiong Niu         247         Kangehenjunga         3           Hsuan Tsang, Emperor         219         Kang Kang Chai         107-108           Hsuan Tsung, Emperor         217-         Kansu         223	Historical Records,	reliable 248	knife	114, 121
Honan       128       Japan       219         Hor Ch'u (River       51       Japanese       258         Hor, The (People)       249       Jehovah       33, 34, 35         Hesie, Sir Alexander       201, x       Jesus       38, 255, 256         see Book Reviews       Jew       31, 112         Hsiang T'an       232       Johanson       xii         Hsiao Kin       57, 59       John, Prestor       245         Hsi Fan       18, 19       Johnstone, Sir Reginald       x         language       17       Journal of the W.C.B.R S.       v         Hsi-Kang       63       Jui Tsung, Emperor       225         prehistortic remains in 56-61       K       K         Hsi Ning, Emperor       235       K         Hsiny Yen-en       227       Kalimpong       8-11         Hsiong Niu       247       Kangehenjunga       3         Hsuan Tsang, Emperor       219       Kang Kang Chai       107-108         Hsuan Tsung, Emperor       217-       Kansu       223	untrustworthy		sword	119
Hor Ch'u (River         51         Japanese         258           Hor, The (People)         249         Jehovah         33, 34, 35           Hesie, Sir Alexander         201, x         Jesus         38, 255, 256           see Book Reviews         Jew         31, 112           Hsiang T'an         232         Johanson         xii           Hsiao Kin         57, 59         John, Prestor         245           Hsi Fan         18, 19         Johnstone, Sir Reginald         x           language         17         Journal of the W.C.B.R S.         v           Hsi-Kang         63         Jui Tsung, Emperor         225           prehistortic remains in 56-61         K         K           Hsi Ning, Emperor         235         K           Hsiong Niu         247         Kalimpong         8-11           Hsiong Niu         247         Kangehenjunga         3           Hsuan Tsang, Emperor         219         Kang Kang Chai         107-108           Hsuan Tsung, Emperor         217-         Kansu         223	Ho Kow	58, 250	Jadeite	122
Hor, The (People)       249       Jehovah       33, 34, 35         Hosie, Sir Alexander       201, x       Jesus       38, 255, 256         see Book Reviews       Jew       31, 112         Hsiang T'an       232       Johanson       xii         Hsiao Kin       57, 59       John, Prestor       245         Hsi Fan       18, 19       Johnstone, Sir Reginald       x         language       17       Journal of the W.C.B.R S.       v         Hsi-Kang       63       Jui Tsung, Emperor       225         prehistortic remains in 56-61       K       K         Hsi Ning, Emperor       235       K         Hsiong Niu       247       Kalimpong       8-11         Hsuan Tsang, Emperor       219       Kang Kang Chai       107-108         Hsuan Tsung, Emperor       217-       Kansu       223		128	Japan	219
Hosie, Sir Alexander see Book Reviews         201, x         Jesus         38, 255, 256           Bee Book Reviews         Jew         31, 112           Hsiang T'an         232         Johanson         xii           Hsiao Kin         57, 59         John, Prestor         245           Hsi Fan         18, 19         Johnstone, Sir Reginald         x           language         17         Journal of the W.C.B.R S.         v           Hsi-Kang         63         Jui Tsung, Emperor         225           prehistortic remains in 56-61         K         K           Hsi Ning, Emperor         235         K           Hsiong Niu         247         Kalimpong         8-11           Hsuan Tsang, Emperor         219         Kang Kang Chai         107-108           Hsuan Tsung, Emperor         217-         Kansu         223			Japanese	
see Book Reviews         Jew         31, 112           Hsiang Tan         232         Johanson         xii           Hsiao Kin         57, 59         John, Prestor         245           Hsi Fan         18, 19         Johnstone, Sir Reginald         x           language         17         Journal of the W.C.B.R S.         v           Hsi-Kang         63         Jui Tsung, Emperor         225           prehistortic remains in 56-61         K         K           Hsi Ning, Emperor         235         K           Hsiny Yen-en         227         Kalimpong         8-11           Hsiong Niu         247         Kangehenjunga         3           Hsuan Tsang, Emperor         219         Kang Kang Chai         107-108           Hsuan Tsung, Emperor         217-         Kansu         223			Jehovah	33, 34, 35
Hsiang T'an         232         Johanson         xii           Hsiao Kin         57, 59         John, Prestor         245           Hsi Fan         18, 19         Johnstone, Sir Reginald         x           language         17         Journal of the W.C.B.R S.         v           Hsi-Kang         63         Jui Tsung, Emperor         225           prehistortic remains in 56-61         K         K           Hsi Ning, Emperor         235         K           Hsiong Niu         247         Kalimpong         8-11           Hsuan Tsang, Emperor         219         Kang Kang Chai         107-108           Hsuan Tsung, Emperor         217-         Kansu         223	Hosie, Sir Alexande	r 201, x	Jesus	38, 255, 256
Hsiao Kin       57, 59       John, Prestor       245         Hsi Fan       18, 19       Johnstone, Sir Reginald       x         language       17       Journal of the W.C.B.R S.       v         Hsi-Kang       63       Jui Tsung, Emperor       225         prehistortic remains in 56-61       235       K         Hsi Ning, Emperor       227       Kalimpong       8-11         Hsiong Niu       247       Kangehenjunga       3         Hsuan Tsang, Emperor       219       Kang Kang Chai       107-108         Hsuan Tsung, Emperor       217-       Kansu       223			Jew	31, 112
Hsi Fan 18, 19 Johnstone, Sir Reginald x Journal of the W.C.B.R S. v Hsi-Kang 63 Jui Tsung, Emperor 225 prehistortic remains in 56-61 Hsi Ning, Emperor 235 Hsiong Niu 247 Kangehenjunga 8-11 Hsiong Niu 247 Kangehenjunga 3 Hsuan Tsang, Emperor 219 Kang Kang Chai 107-108 Hsuan Tsung, Emperor 217-				
language         17         Journal of the W.C.B.R S. v         v           Hsi-Kang         63         Jui Tsung, Emperor         225           prehistortic remains in 56-61         235         K           Hsi Ning, Emperor         235         K           Hsin Yen-en         227         Kalimpong         8-11           Hsiong Niu         247         Kangehenjunga         3           Hsuan Tsang, Emperor         219         Kang Kang Chai         107-108           Hsuan Tsung, Emperor         217-         Kansu         223		57, 59		
Hsi-Kang         63         Jui Tsung, Emperor         225           prehistortic remains in 56-61         26-61         K           Hsi Ning, Emperor         235         K           Hsin Yen-en         227         Kalimpong         8-11           Hsiong Niu         247         Kangehenjunga         3           Hsuan Tsang, Emperor         219         Kang Kang Chai         107-108           Hsuan Tsung, Emperor         217-         Kansu         223				
prehistortic remains in 56-61 Hsi Ning, Emperor 235 Hsin Yen-en 227 Hsiong Niu 247 Hsuan Tsang, Emperor 219 Hsuan Tsung, Emperor 217- Kansu 223				
Hsi Ning, Emperor         235         K           Hsin Yen-en         227         Kalimpong         8-11           Hsiong Niu         247         Kangehenjunga         3           Hsuan Tsang, Emperor         219         Kang Kang Chai         107-108           Hsuan Tsung, Emperor         217-         Kansu         223		-	Jui Tsung, Empe	ror 225
Hsin Yen-en 227 Kalimpong 8-11 Hsiong Niu 247 Kangehenjunga 3 Hsuan Tsang, Emperor 219 Kang Kang Chai 107-108 Hsuan Tsung, Emperor 217- Kansu 223			17	
Hsiong Niu 247 Kangehenjunga 3 Hsuan Tsang, Emperor 219 Kang Kang Chai 107-108 Hsuan Tsung, Emperor 217- Kansu 223				
Hsuan Tsang, Emperor 219 Kang Kang Chai 107-108 Hsuan Tsung, Emperor 217- Kansu 223				
Hsuan Tsung, Emperor 217- Kansu 223				
221, 224, 225, 231. Kao Sheo-Pi 110				
	221, 22	4, 225, 231.	Kao Sheo-17	110

Kao Shih	235	Leopards 9
Karakorum	225	Lepchas . 3, 248
Ka Zhi La	<b>5</b> 8	Lewis, Spencer x
Kehsi	201	Lha G'ang Valley 58
Keh Ming Tang	69	Lewis, Spencer x Lha G'ang Valley 58 Lhasa 245, 246, 260 Li Chi 198
Keh Ming Tung Min Hue	69	Li Chi 128
K'epu Chan	52	Li Ch'a (River) 50-51
Keraito 225,	226	Lifan 22, 109
Khormuzta 254,		Light, The 253-256
Kia-Kü	201	Ling-Wu, Kansu 221, 223, 225
Kiarung, see Giarung		Li Pin 234
Kiating 62, 73, 86,	148	Litang River 50-51
rafts	62	Litholatry 33, 42, 46, 257
Kilborn, O. L. x,	xiv	Li T'ai-po 220
Kilin, ancient pottery 118,	119	Liu Hsu 241
Kin Ch'wan 30, 57, 61,	197,	Liu Li-hsien 216
201,	250	Li Yuan 219
Knife, Ch'iang sacrificial	45	Lo Chia Chi 52
jade	114	Locy ix
Knives, stone 58,	123	Loess 57, 59, 60
Ko Lao Hue 77, 78, 82, 83	3, 84	Loh-hsien 234
Ko Mo Jo	129	Lo K'a K'ra 52
Kreitner	ix	Lolo, see also Nosu
Krick and Boury	139	language 17, 258
Kuei Hu	<b>2</b> 30	Lololand, Independent 19, 20
Kumdan	224	Lo Magistrate of Hanchow 115
Kuo Tsi-I 224	-226	Looting (Chengtu) 83
Kwang Fu Hue 66	, 69	Luchow, Sze. 73, 86
Kuo Tsi-I 224 Kwang Fu Hue 66 Kwang Hsu, Emperor	71	Lu Hai Chai 110
Kwanhsien 107, 148,	163	Lung Ch'uen Ih 74
Kyoto	219	Lung Ho Ch'ang 74
•		Lute, seven stringed 106
${f L}$		Lu Yu 244
Laboratoie d'Entomologie,	148	
Ladders	24	$\mathbf{M}$
Lake, Fang Kung's 235-	236,	Ma-Be Chee 36
242, 243,		Macdonald, David 8
Lama 109,	111	Magianism 252
Lamaism 252	-257	Malak 39
Lamaseries	107	Manchu Dynasty 64, 66, 129
Lamb, sacrificial 4	5-47	Manchus in Szechwan 88, 89
Language changes in West		Mani 252, 256
China 258	-26 <b>2</b>	Manicheism in Lamaism 252-257
Lantern lens artifact	138	Mani ramparts 58
	', 58	
Laufer, Berthold xii,	121	Man-tze 18, 19, 247
in memoriam	<b>283</b>	Mao Niu Valley 249
L'Chags Ra	<b>54</b>	Maoya Gulch 57, 58

Marcion ,	252	Museum, West China Union
	22, 47	University wiii 97 42
Marriage, Ch'iang of priests	40	University, xiii, 27, 43, 105, 114, 115, 118, 129,
Matriarchy	30	132-137, 143, 162,
Mears	xii	Music 106, 227
Medical Museum	132	Music 100, 227
Medicine diggers	108	N
	49, 52	Nashi 249
Menkong Mesny	40, 52 ix	Neal, Mdm. David 50
Meteorite crater in Sze.		Nee-Dsu 38
Miao	19, 258	Neolithic remains 56, 134
Mica schist	19, 200 57	Nepaul 248
Mienchuh	214	Nepaulese 3
	116	Nestorian monument at Han-
Ming Dynasty	107	chow Sze. 212-244
Ming River Ming Vally 247,	250, 258	Nestorian Tablet 213, 221, 224
Ming Vany 247, Minya Kangka iii,	200, 200	
	248	Sze. 208-244
Minyag Mirrors, bronze	35	in Tibet 245
	52	Nestorius 213
Mirya Mishmis	$\frac{52}{52}$	New Testament 37
Missing Links	29 30	New Year, Ch'iang 39, 43
Missionaries and resear		New Zealand 56
Mochow	163	Ngaba 17
Mohammedanism	219	Nirvana 255
		Ning-yuan-fu 20
Mohammedans at Sung	16, 17	Niu Peng 108
and the revolution in		Nosu 19, 20, 31
Molluses	144	Nyag Rong 248
Molo	201	Nyi Ma Valley 57, 58
Monkey Emanation	$\begin{array}{c} 201 \\ 254 \end{array}$	Nyi Ma vancy 01, 00
Monotheism, Ch'iang	32	0
Monsters	29	Od d'pag med 253, 255, 256
Morse, W. R.	xvi	Ogden zii
see book reviews	211	Ogotai 225
Moses	32, 35	O'gre 225
Mosu	249, 250	Ogre's Stone 30
Moths	132	Old Testament 31, 37, 39, 47,
Moupin	163	112, 213
Mountain, sacred	54	Olopen 212
Mowkung	57, 59	Omei, Mt. 148, 163, 216
	6, 14, 18	O-pee = white stone 35
Mo Yu	52	Opium 206
Muir, J. R.	xii, 51	Orehid 5
Mules	11	Ormuzd 257
Muli	50	Oui Ch'u (River) see Wi Ch'u
Murdo	30	Ouigours 14
Museum, U. S. Nationa		see also Yuigurs and Uighurs
, , , , , , , , , , , , , , , , , , , ,	,.02	

Unions	43	Quartz 30, 32, 57, 59, 60, 111
P		R
Paharias	3	Rafts, at Kiating 62
Paintings	105	Railway League 71-79, 82, 87,
	30, 60	90
Pan Chen Lama	256	Railway, Szechwan 69-71, 73
Paoning	$\begin{array}{c} 200 \\ 229 \end{array}$	Religion, Ch'iang 13, 31-48
Paraclete 252, 25		Religious customs ancient 118
Paradise of Light 253, 25		Remains, prehistoric 56-61
Parry, Dr.	xi	Renou viii
Partridges at Sungpan	15	Reptiles 143, 144
	136	
Pathological specimens Pathology	13 <b>3</b>	Revolution in Szechwan 64-90
Dob Vinner C!		Revolutionary Assasination
	10-112	Party 66
Pelliott, Prof.	212	Revolutionary League 69
Penghsien	163	Revolutionary Party 86
Penshan	. 163	Revolutionists, see list of
	i, xxii·	Chinese names at end of index
Persian religion	213	r'Gyal Rong 247
temples 210	6, 220	Rhe-Dsu 38
Pe T'u	49	Ri Mo Chong 57
Phallic religion	13	Riot in Kiating 12
Pharmaceutical specimens		Ririe x
Pheasants	25	Ritual, Ch'iang 37
Po Chü-I	$\boldsymbol{222}$	Roads in Sze. in T'ang Dynasty
Polhill	x, xii	235
Po-lo-tse	18	Rock, J. E. xiv
Porcelains	105	Rockhill x
Potanin	ix	Roll, Ch'iang sacred 38, 39, 41
Pot-sherds, Hanchow		Rome 249
	24-126	Romi Chrango 201, 247, 248
Pot stands, stone	60	Rong 246-251
Pottery 105, 118, 119	, 123,	Rong mi Dra m'G 247
124, 126-128		Rong s'ke 54, 249
Pratt	×	Rung see Rong
Prayers, Ch'iang	41, 45	
	56-61	${f S}$
Pre-Tibetans	56	Sachau 253
Priests, Ch'iang 38-42,		Sacred grove 32, 35, 36, 38, 40,
dress	43	43
ordination	40	mountain 54
P'u-ko-ting	201	pole 32
Pu-sa. Ch'iang	34	roll 38, 39, 41
	3, 139	tree 35, 40
2,5	J, 100	Sacrifice 37, 38, 40, 44, 46, 112
<b>Q</b> .		Sacrificial altar 32
Quakers	84	Saeki, Prof. 220, 222
demarce 2	0 1	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~

Salt	202	Spirit possession 42
Salwin River	52-53	Spirits 20, 112
Sanctuary, Ch'iang	36	evil 16
Sandal, straw	106	Father of Ch'iang 36
Sandstone	60	Spiritual conception of Ch'iang
San Miao, The	247	31-48
Sanscrit	17, 62	Spyan ras g'zigs 253, 254, 255,
San Wei, The	247	256
Sarcophagus	35	s'Prol ma 253, 256
Savage man	58, 61	Srin Po (Rock demons) 254
Saws, stone	60	Stone Age Man 60
Schist	60	Stone implements 30
Scrapers, stone	58, 60	disks or rings 115, 116
Scriptures, Ch'iang	38	Fang Kung, at Hanchow Sze.
Seed, in Ch'iang wors		240
Semitic features of Ch		pillar 32
origin of Ch'iang re		white, 24, 32, 35, 40, 44,
worship	32	45, 46
Sha Kuo T'un	121, 128	worship, see litholaltry
Shale	59, 60	Stotsner expedition xi
Shaman priest	112	Students and the revolution in
Shara T'ang	57, 59, 60	Szechwan 65
Sheep	14	Sueh Lung Pao 111
Sherab, Paul	249	Suenking 86
Shi Ch'u	59	Suifu 86, 163, 248
Shi Fang		Sumatra 50, 103, 243
Shi Pu	73, 214	Sumerian 32
Sickness, spirits causi		
		Sungpan 14-17, 163 Su Tsung, Emperor 217 220,
Si K'ung-t'u	3, 18, 248 230	221, 223, 224, 225. 231
	34, 36	Swords, jade 119
Sinai, Mt.	37	
Sin-bearer	73, 229	Symbolic tree 35 Syrian temples 216
Sintu		
Skull	38, 41	Szechwan, butterflies of 162-195
Slavery	52, 53	civilization in T'ang Dyn. 234
Slave market	53 19	independence declared 88
Sling		population in T'ang Dyn. 234
Smith, Tom	Xii	Yong survivals in 246-251
Smoking	43	railroad 69
Social customs, ancier		revolution in 64-90
Somo	111	Т
Song, Bishop C.C.	215	<del>-</del>
Sopo	201	T'ai P'ing Ch'ang 114-115
Sorensen	14, xii	T'ai Tsung, Emperor 211, 212,
Souter	xii co	224, 234 Takin Piyan 57
Spear heads, stone	60 144	Takin River 57
Spiders	41, 42	T'ang Dynasty 208-211, 217- 220, 234
Spiritism	71. 74	. 440. 404
•	,	<b>220, 2</b> 00

m 00 00 FF F0 001 040	The Fr. 017 000 007 000 000
Tanpa 29, 30, 57, 59, 201, 249	Tu Fu 217, 220, 227, 228 229
Taofu 57-59	230, 241, 243
T'ao, General 114, 121	see book reviews
Tashkend 219	Tung Chih Hue 69
Tattooing 53	Tung Hsiang Hwei 77
<b>Tats</b> ienlu <b>ix</b> , 54, 56, 57, 139, 163	Tunhuang 221, 226
Taxonomy of Chrysomelidae	T'ung River 201
142-161	Turkestan 252
Taylor, Miss 4-8, 11	Turkey 249
Tea 5, 18	Turquoise 118
Teesta River 9	Tzechow 78
Teh Tsung, Emperor 224	12(011)W
Teichman Sir Eric see Book	U
Reviews	Uighurs 224, 225, 226
Te-sa-a-ga 42	also see Ouigours and Yuigurs
Thompson, Dr. G. xii	United Railway Party 71
Thyme, wild 202	Upcraft x
Thyroid gland 196	37
Thunderbolt 11	V
Ti, The 247	Vertebrates 144
Tibet, Eastern 248	
The name 62	W
Nestorianism in 245	Walmsley, L. C. 126
Prehistoric remains in 56-61	Wang Hsiang T'ai 212, 216,
Tibetan language 4, 17, 250, 258	236 238
Pioneer Mission 1	Wang Yen 230
rivers 49 51	Wa Po 49
Tibetans 3, 4, 18, 31, 61	Wasa 107
rebel 89	Washan 163
T'ien Lao-yeh 210	Wa Yul 49
T'ien Ma 140-141	
Tih, The 247	Weapons, stone 58 Weicheo (Weichow), Sze. 13
Ti Ru 58	Weigold xi
	weigoid xi
W	
Tones 17	Wen-Chwan 109
Tong T'in-lan 227	Wen-Chwan 109 Wen Kung 210-211
Tong T'in-lan 227 Tools, flint 63	Wen-Chwan       109         Wen Kung       210-211         Wen Sen-Ts'ai       66
Tong T'in-lan         227           Tools, flint         63           Torrance, T.         xvi, 213	Wen-Chwan 109 Wen Kung 210-211 Wen Sen-Ts'ai 66 West China Border Research
Tong T'in-lan       227         Tools, flint       63         Torrance, T.       xvi, 213         Totem       55	Wen-Chwan 109 Wen Kung 210-211 Wen Sen-Ts'ai 66 West China Border Research Society i, viii, xv
Tong T'in-lan       227         Tools, flint       63         Torrance, T.       xvi, 213         Totem       55         Towers at Weichow       13	Wen-Chwan 109 Wen Kung 210-211 Wen Sen-Ts'ai 66 West China Border Research Society i, viii, xv West China Union University
Tong T'in-lan       227         Tools, flint       63         Torrance, T.       xvi, 213         Totem       55         Towers at Weichow       13         Treatment of disease       15-16	Wen-Chwan 109 Wen Kung 210-211 Wen Sen-Ts'ai 66 West China Border Research Society i, viii, xv West China Union University xii-xiii
Tong T'in-lan       227         Tools, flint       63         Torrance, T.       xvi, 213         Totem       55         Towers at Weichow       13         Treatment of disease       15-16         Tree, symbolical       35	Wen-Chwan Wen Kung Wen Kung Wen Sen-Ts'ai West China Border Research Society West China Union West China Union Beginnings 91-104
Tong T'in-lan       227         Tools, flint       63         Torrance, T.       xvi, 213         Totem       55         Towers at Weichow       13         Treatment of disease       15-16	Wen-Chwan 109 Wen Kung 210-211 Wen Sen-Ts'ai 66 West China Border Research Society i, viii, xv West China Union University xii-xiii
Tong T'in-lan 227 Tools, flint 63 Torrance, T. xvi, 213 Totem 55 Towers at Weichow 13 Treatment of disease 15-16 Tree, symbolical 35 Tsa-Ku-Lao ix, 107, 110 Tsamba 18	Wen-Chwan Wen Kung Wen Kung Wen Sen-Ts'ai West China Border Research Society West China Union Beginnings  109 210-211 Wen Sen-Ts'ai i, viii, xv Wiii, xv Wiii-xiii Beginnings
Tong T'in-lan       227         Tools, flint       63         Torrance, T.       xvi, 213         Totem       55         Towers at Weichow       13         Treatment of disease       15-16         Tree, symbolical       35         Tsa-Ku-Lao       ix, 107, 110	Wen-Chwan Wen Kung Wen Kung Wen Sen-Ts'ai West China Border Research Society West China Union West China Union Beginnings Beginnings Budget 92
Tong T'in-lan 227 Tools, flint 63 Torrance, T. xvi, 213 Totem 55 Towers at Weichow 13 Treatment of disease 15-16 Tree, symbolical 35 Tsa-Ku-Lao ix, 107, 110 Tsamba 18	Wen-Chwan 109 Wen Kung 210-211 Wen Sen-Ts'ai 66 West China Border Research Society i, viii, xv West China Union University xii-xiii Beginnings 91-104 Budget 92 Buildings 94-96
Tong T'in-lan       227         Tools, flint       63         Torrance, T.       xvi, 213         Totem       55         Towers at Weichow       13         Treatment of disease       15-16         Tree, symbolical       35         Tsa-Ku-Lao       ix, 107, 110         Tsamba       18         Ts'a Rong       248         Tsong K'a Pa       50	Wen-Chwan 109 Wen Kung 210-211 Wen Sen-Ts'ai 66 West China Border Research Society i, viii, xv West China Union University xii-xiii Beginnings 91-104 Budget 92 Buildings 94-96 Campus 92
Tong T'in-lan       227         Tools, flint       63         Torrance, T.       xvi, 213         Totem       55         Towers at Weichow       13         Treatment of disease       15-16         Tree, symbolical       35         Tsa-Ku-Lao       ix, 107, 110         Tsamba       18         Ts'a Rong       248         Tsong K'a Pa       50         Tsong Yul       53	Wen-Chwan         109           Wen Kung         210-211           Wen Sen-Ts'ai         66           West China Border Research         i, viii, xv           Society         i, viii, xv           West China Union University         xii-xiii           Beginnings         91-104           Budget         92           Buildings         94-96           Campus         92           Constitution         97-100           Endowments         92-93
Tong T'in-lan       227         Tools, flint       63         Torrance, T.       xvi, 213         Totem       55         Towers at Weichow       13         Treatment of disease       15-16         Tree, symbolical       35         Tsa-Ku-Lao       ix, 107, 110         Tsamba       18         Ts'a Rong       248         Tsong K'a Pa       50         Tsong Yul       53	Wen-Chwan         109           Wen Kung         210-211           Wen Sen-Ts'ai         66           West China Border Research         i, viii, xv           Society         i, viii, xv           West China Union University         xii-xiii           Beginnings         91-104           Budget         92           Buildings         94-96           Campus         92           Constitution         97-100           Endowments         92-93

### **x** xviii

Museum-see Museum	Yang Chuang-Yuan 229
West China Educational Union	
102	0
West Lake, Hanchow, Sze. 235	
White Banner 45	Yang T'in-ai 230
Whiteness, significance of 33	
White stone 32, 33, 34, 35,	Yen, Mr. of Hanchow 114-116,
44, 45, 46	121
Wi Ch'u (River) 49-50	Ye-su, see Je-dsu
Wild men 30	
Williamson 139	Yin Dynasty 128
Wilson, E. H. x	371 37 0111
Wine 44-46	
Wool · 7, 9	
Worms 144	
Worship, Ch'iang 31-48	
in high-places 31	Yuigurs 253, 254
of heaven and earth 119	see also Uighurs and Ouigours
of stones, see litholatry	Yü Lung Hsi 58
private (Ch'iang) 40	Yü T'ong 29
Writing, Ch'iang 38	14 1 000
Wuchang 80	${f Z}$
	Zha Me 55
	Zha Me 55 Zhara 54
Wu Liang Ho 50-51	
Wu Tao-tsi 220	Zhong, see Rong
Wu Tsung, Emperor 229	Zhu Ri Ha K'a 57, 58
Y	Zoological specimens 136
	Zung, see Rung
Yachow 20	Zung Kang 247
Yang Ch'en 223, 227, 229	

List of revolutionists, Manchu officials, and others who were concerned in the revolution in Szechwan, and mentioned in the article by Mr. S. C. Yang, pages 64-90. The names are in the order of appearance in the article.

趙	啓	霖		林	冠	慈
劉		通		陳	敬	岳
吳	天	成		張	免	培
趙	爾	異		楊	禹	昌
史	堅	如		闰	世	凱
德		ाव <u>ें</u>		彭	家	珍
戴		溱		頣		棤
端		方		劉	東	塘
政	鴻	慈		良		弼
徐	世	昌		盛	宜	懷
紹		英		孫		文
吳		樾		榮		潑
徐	錫	麟		康	有	爲
陶	成	章		梁	啓	超
恩		銘		벢		田
馮		煦		小小		村
汪.	兆	銘		野		П
温	生	オ		唐	オ	常
孚		琦		竟	太	炎
胡	漢	民		蔡	元	培
張	鳴	歧		部		容
李		進	•	吳	敬	恒
鳳		山		黄	中	央

光 燾 魏 黄 興 宋 仁 教 樺 家 程 章 施 典 長 信 石 鼎 楊 文 元 劉 聲 嵢 阮 孔 揚 李 黎 廣 芬 王. 人 文 豐 趙 爾 勳 李 稷 鵩 張 烈 彭 光 良 尹 周 善 培 胡 嗣 芬 宗 潼 于 宗 元 沈 峑 楊 少 蒲 俊 殿 綸 羅 可 鄧 孝

胡

嵥

Ξ 江 乘 誠 棠 乗 新 王 銘 彭 闌 村 昆 裕 振 邦 田 生 伍 柸 葵 田 徵 岑 臖 煊 侁 陳 君 堂 鄧 衡 楊 維 黎 慶 雲 王 樹 槐 張 輯 拞 詹 步 超 彭 惠 雹 謝 人 傑 覺 民 崔 從 恩 卲 慶 瀾. 朱 阿 惕 張 志 青 連 雅 各 楊 剅 屏 萬 谾 劉

路 廣 中 閻 士 向 禮 南 採 澤 沛 吳 慶 熙 齌 侯 保 慶 親  ${\bf \Xi}$ 劉 嘉 琛 Щ 朱 劉 恩 培 曾 廣 大 文 淑 吳 隽 民 粱 彭 漢 詹 覺 吾 尹 昌 衡 鑑 曾 陳 省 吾 蔣 壽 眉 郭 開 文 鉅 祥 舒 伯 琴 顔 陳 維 新 劉 天 佑 薫 修 拞 朮 慶 伯 伯 王 涵 沈 興 伯 駿 周 劉 存 厚 楊 庶 堪 斌 張 文 黃 繼 元 張 烈 拞. 夏 さ 時 但 辛 懋 楊 淼 焮 傅 當 陶 澤 錕 趙 少 龍 豐 史 隽 李 芳 久 平 王 海 籃 用 九 文 瀾 胡 尙 節 之 蕭 湘 οŢ

