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Edited by

J. R. LOGAN.



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## CONTENTS.

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	Page.
I.	
The Maruwi of the Baniak Islands. By <i>J.R. Logan, Esq.</i>	1
II.	
Notes on Malacca.....	43
III.	
Gambling and Opium Smoking in the Straits of Malacca..	66
IV.	
Journal of a Tour on the Kapuas.....	84
V.	
The Banda Nutmeg Plantations. By <i>T. Oxley, Esq. A.B.</i> , Senior Surgeon of the Straits Settlements.....	127
VII.	
Notes of Dutch History in the Archipelago.....	141
VIII.	
Notes on Naning, with a brief notice of the Naning War. By <i>T. Braddell, Esq.</i> .....	194
IX.	
Bima and Sumbawa. By <i>H. Zollinger</i> .....	233
X.	
Raffles and the Indian Archipelago.....	266
XI.	
Notice of Mr Crawford's Descriptive Dictionary.....	291
XII.	
Map of Malacca.....	296
XIII.	
Anderson's Considerations.....	299
XIV.	
The Gamboge Tree.....	316

CONTENTS.

XV.

ETHNOLOGY OF THE INDO-PACIFIC ISLANDS. By *J. R. Logan*.\*

CHAP. VI. ENQUIRIES INTO THE ETHNIC HISTORY AND RELATIONS OF THE TIBETO-BURMAN AND MON-ANAN FORMATIONS.

Sec. 5 (contd.). The Miscellaneous Glossarial Affinities of the Tibetan Dialects amongst themselves and with Chinese and Scythic... ..	1
Sec. 6. The glossarial connection between Ultraindo-Gangetic and Tibetan.....	8
Sec. 7. The forms and distribution of the Chino-Himalaic Numerals in China, Tibet, India and UltraIndia, considered as illustrative of the ancient relations and movements of the tribes of this Province, and of the secular changes in their glossaries.. ..	116

APPENDIX TO CHAP. VI. OF PART II.†

A. Comparative Vocabulary of the Numerals of the Mon-Anam Formation.. ..	1
B. Comparative Vocabulary of Miscellaneous Words of the Mon-Anam Formation.....	6
C. Comparative Vocabulary of Chinese and Tibeto-Ultra-Indian Numerals.....	21
D. Comparative Vocabulary of Miscellaneous Words common to Tibetan, Indian and UltraIndian Languages...	31
E. Vocables Non-Bhotian in root or form common to North UltraIndian, Himalayan and Middle Gangetic Languages.....	42

\* This paper is separately paged and placed at the end of the volume.

† This paper is also separately paged.

# INDEX.

<b>A</b>	
<i>Archipelago</i> , Notes of Dutch History in the.....	141
ANDERSON'S Considerations on the Conquest of Keddah &c.	299
<b>B</b>	
<i>Baniak Islands</i> , The Maruwi of the. By J.R. Logan....	1
Banda Nutmeg Plantations. By T. Oxley, Esq...	127
Bima and Sumbawa. By H. Zollinger.....	233
BRADDELL, Esq. T. Notes on Malacca...	43
————— Gambling and Opium Smoking in the Straits of Malacca....	66
————— Notes on Naning.....	194
————— Map of Malacca.....	296
<b>C</b>	
CRAWFURD'S Descriptive Dictionary, Notice of..	291
<b>D</b>	
Dutch History in the Archipelago, Notes of....	141
Dictionary, Notice of Mr Crawford's Descriptive..	291
<b>E</b>	
<b>Ethnology and Ethnography :</b>	
Ethnology of the Indo Pacific Islands*.....	*1
COMPARATIVE Vocabularies &c..... (at end)	
The Maruwi of the Baniak Islands.....	1
<b>G</b>	
Gambling and Opium Smoking in the Straits of Malacca. By T. Braddell, Esq.....	66
Gamboge Tree.....	316
<b>Geography :</b>	
Notes on Malacca.....	43
Journal of a Tour on the Kapuas....	84
Notes on Naning....	194
Bima and Sumbawa.....	233
Map of Malacca.....	296
<b>I</b>	
Indo-Pacific Islands, Ethnology of the..	*1
Indian Archipelago, Raffles and the..	266
Indian Islands, Notice of Crawford's Descriptive Dictionary of	291
<b>J</b>	
Journal of a Tour on the Kapuas..	84

\* Separate paging at end of Volume.

I N D E X.

**K**

<i>Kapuas</i> , Journal of a Tour on the. . . . .	84
<i>Keddah</i> , considerations on the Conquest of, by Anderson.	299

**L**

LOGAN, J. R.—The Maruwi of the Baniak Islands.....	1
Ethnology of the Indo-Pacific Islands. . . .	*1
Comparative Vocabularies &c.....	*1

**M**

Maruwi of the Baniak Islands. By J. R. Logan, Esq....	1
<i>Malacca</i> , Notes on, by T. Braddell, Esq. . . . .	43
————— Gambling and Opium Smoking in the Straits of	66
————— Map of, by T. Braddell, Esq. . . . .	296
Nutmeg Plantations of Banda, by T. Oxley, Esq. . . .	127
<i>Naning</i> , Notes on, by T. Braddell, Esq. . . . .	194

**O**

OXLEY, T. Esq. The Banda Nutmeg Plantations. . . .	127
--	-----

**R**

Raffles and the Indian Archipelago. . . . .	266
---	-----

**S**

Sumbawa, Bima and, by H. Zollinger. . . . .	233
---	-----

**Z**

ZOLLINGER, H.—Bima and Sumbawa. . . . .	233
---	-----



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OF  
THE INDIAN ARCHIPELAGO  
AND  
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THE MARUWI OF THE BANIAK ISLANDS.

By J. R. LOGAN.

*Sources of Information.*

1. WILLIAM MARSDEN. "The History of Sumatra &c." 3rd ed. 1811, pp. 478,9.

2. H. VON ROSENBERG. "Geografische en Ethnografische Beschrijving van het distrikt Singkel, de landen liggende langs de Simpang Kanan, en de Banjak-eilanden, benevens eene korte aanteekening nopens de Simpang kiri." *Tijdschrift voor Indische Taal,-Land-en Volkenkunde*—J. II, Afl. v, 1854.

The notices in Marsden are very slight, scarcely occupying a single page, and until the publication of Mr von Rosenberg's account of the Baniak islands and their inhabitants, our knowledge of the most northerly of the West Sumatran insular trites was extremely scanty. We remain without any description of the interior of the principal group occupied by the Maruwi—Si Malu or Pulo Babi and the islets around it. The present paper is based entirely on Mr Rosenberg's valuable contribution to Sumatran ethnology and geography, and in the first or descriptive portion of it his language has often been followed with little variation. I have reserved any notice of the Si Malu group in the hope that Mr Rosenberg—who has now so well illustrated the Maruwi, the Mantawe and the Engano islanders—will be enabled to complete our knowledge of the first by visiting their principal seat.

## THE BANIAK ISLANDS.

*General Description.*—Si Malu the most northerly of the western chain of Sumatra lies on nearly the same line with Nias. Its northern point is in  $3^{\circ}$  N. L. and its southern in  $2^{\circ} 29'$  N. L. About 40 miles almost due east, the northern point of Pulo Tuwanku or Great Baniak is touched. From its southern point Nias is distant about 27 miles due south, and its S. E. point is 20 miles from Cape Singkel, the nearest portion of the Sumatran coast, which here advances considerably. The Baniak group consists of numerous islets and rocks scattered irregularly over an area about 20 miles from E. to W. ( $94^{\circ} 47'$  to  $95^{\circ} 7'$  E.) and 27 miles from N. to S. ( $20^{\circ} 21'$  to  $1^{\circ} 54'$  N.) in its broadest and longest portions. The entire surface of land may be computed at 105 Sumatran miles. Fifty-two of the islands have received names, and there are about thirty others nameless, of which the area is included in that of the nearest islands in the following enumeration :

	sq. miles
Pulo Tuwanku.....	$57\frac{1}{2}$
Bangkaru.....	24
Ujong Batu.....	$2\frac{3}{4}$
Arungan.....	$2\frac{1}{2}$
Balambak gadang.....	2
Panjang.....	$1\frac{1}{2}$
Bagu.....	„
Sikandang.....	$1\frac{1}{2}$
Tebu-tebu.....	„
Timbarat.....	„
Mataari.....	1
Salambau.....	„
Lamun.....	„
Panghulu.....	$\frac{2}{3}$
Balambak kichil..	$\frac{1}{2}$
Simoh.....	„
Bahlong.....	„
Rangit gadang.....	$\frac{1}{2}$
Baleh.....	$\frac{1}{4}$
Laraga.....	$\frac{1}{2}$



	sq. miles.
Asap.....	$\frac{1}{3}$
Samut.....	"
Sorong alu.....	$\frac{1}{6}$
Laurat.....	$\frac{1}{4}$
Pinang.....	"
Sirong gantong.....	"
Lania.....	"
Babisi.....	$\frac{1}{8}$
Tailana.....	"
Tibalau.....	$\frac{1}{5}$
Tabala.....	"
Rangit kichil.....	"
Sagu Sagub.....	"
Lawodu.....	$\frac{1}{15}$
Busuk....	"
Kasik.....	$\frac{1}{20}$
Gosong Suwang-suwang....	"
Gosong Samidin.....	"
Pulo Mandan kati.....	"
Gosong Sijanjei.....	"
Pulo Mariaba.....	"
"  Tabala.....	"
"  Raga-raga.....	"
"  Meylee.....	$\frac{1}{25}$
"  Panjang.....	"
Gosong Pasir.....	$\frac{1}{40}$
"  Kataping.....	"
Pulo Batu....	"
"  Ula-ula....	"
Gosong Sitongka.....	$\frac{1}{30}$
Pulo Melela.....	"

The whole group, as seen from the sea, appears of considerable height, two of the islands, Pulo Tuwanku and P. Bangkaru, being conspicuous and the latter almost entirely mountainous. The former is intersected by several low hill ranges; which in general slope gently to the flat land and the coast, but at some

points sink abruptly into the sea, as at Ujong Limoh, U. Tambehgo and U. Batu. The highest hill is Gunong Trusa or Tuwanku, rising in the north of the island and east of Tuwanku bay to an altitude of about 400 feet. It towers prominently above the surrounding hills, and is clothed to its summit, which has never been ascended, with tall forest trees. The islanders dare not ascend it because they believe that on the top there is the grave of a bad spirit which would kill any person who approached its place of rest. So far as Mr Rosenberg was able to examine its mineral composition, it consisted principally of sandstone and limestone. The hill next in magnitude is Gunong Batu Lanting, which stands by itself on the north west side of the island. It is very steep, shows nearly the same outline on all sides, and is about 250 feet in height. On the north it plunges perpendicularly into the sea, and the naked rocks exposed on this side are the same as those observed on Gunong Trusa. It is covered from base to summit with dense jungle. The name, which signifies "the cast-stone," is said to have been bestowed from a fight having once taken place off it between Achinese and Baniak praus, in which the crews of the latter used slings and stones. The last of the more conspicuous points of the island is Gunong Tambehgo to the north of Panghulu bay, and about 120 feet in height. It is an offshoot of the same chain which sends out Gunong Trusa to the eastward. Seen from the north it has the shape of a dome, and from the south that of a sugar loaf. In other respects it resembles the hills already mentioned.

The island of Bangkaru, with the exception of a few small flats on the coast, is entirely hilly, the highest portions being about 500 feet above the level of the sea. In many places it sinks with so much steepness into the sea that no anchorage ground can be found. The Baniak islanders visit P. Bangkaru very seldom and hold it in superstitious dread, believing that it is haunted by bad spirits, who convey to it the souls of the dead,—a remnant of the old Malayu-Polynesian creed.

Pulo Ujong Batu is also intersected by a hill range, of which the highest points reach to 60 or 70 feet. Pulo Bagu and P. Baleh have likewise each a hill and on the northern side of P. Balambak Gadang there is a trachite rock about 25 feet high.

*Coast and Sea.*—The only points along the coasts that are named, with one or two exceptions, are the promontaries of Pulu Tuwanku, viz., Ujong Selinga—the western point of the island,—U. Têlo Limoh, U. T. Nare, U. Labuan-lulu—the south point,—U. Tambehgo, U. Sioloh—the east point,—U. Karang Eyru, U. Bala-bala and Batu-lanting—the north point. The northwest point of P. Simoh is called Ujong Simoh, and the north point of P. U. Batu is called U. Batu.

The sea between the islands is very dangerous even for vessels of no great size, owing to the numerous coral reefs, sand banks and strong currents. These dangers are especially numerous between P. Tuwanku and the islets from P. Maudan kati to P. Asap, and from P. Asap to P. Balambak. In these tracts the bottom consists of sand and coral banks lying in stripes and frequently so close to the surface that even when in a sampan it is necessary to step out in order to drag it over them, and men may be seen standing or running in the sea at a distance of many hundred yards from the nearest land.

A heavy surf prevails on all the banks. Along the whole of the southwest and south coast of Pulo Tuwanku it is so violent that the land cannot be approached. It is equally strong around P. Sarambau and P. Bangkaru, and at the north point of P. Ujong Batu. But it is against the steep shore of Batu-lanting that the waves break with their greatest fury. Rushing against the perpendicular rocky wall, torn by their constant assaults, they are sometimes driven up to the height of fifty feet and fill the vicinity with a sound like thunder.

The principal currents that have been observed are one beginning at P. Ujong Batu and ending at the Rangit islands, and running very strong from the south east to the northwest; one running from east to west, to the south of P. Tuwanku; and one running from south to north, to the south east of P. Bangkaru.

Square rigged vessels wishing to make the large island must sail outside, but vessels of less draught can sail in to the south of P. Rangit Kichil between the islands, following the course marked on the chart.

The chief anchoring places are, on the north side, Labuan

Tuwanku, L. Asaluan and L. Sau; on the south side, Tiloh Limoh and T. Narre; on the east coast of P. Tuwanku, L. Sohri, L. Samut, L. Pangulu and L. Tambehgo; and, at the north west point of P. Ujong Batu, Tilo Nibung. Of these the only anchorages for larger vessels are L. Tuwanku, L. Sau and T. Nibung. When the wind is from the north or west they are exposed to a heavy sea. Places where small vessels can anchor are also found on the north side of P. Bangkaru, on the west side of P. Asap, on the east side of P. Balambak gadang, on the east side of P. Baleh, and between P. Rangit gadang and P. Rangit kichil, the last being the safest of all.

*Streams.*—Streams are only found on the two large islands, Tuwanku and Bangkaru, and from the small size and height of the land they hardly deserve even the name of rivulets. With one exception they are only about three yards broad, and in the middle from  $\frac{1}{2}$  a foot to 2 feet deep at their mouths and 4 to 5 feet further up the stream. Their course is very short and winding. The principal in P. Tuwanku are Ayer Sentole, A. Sirohi, A. Luan-wano, A. Sesagu and A. Tatalo. The last is the largest. It is about seven yards broad, 3 feet deep at the mouth and a fathom further up, and after a continued rain it is difficult to ford. All these streams fall into Tuwanku bay. Two rivulets without names pour their waters into Pangulu bay and Sohri bay. The streams of Bangkaru are insignificant and unnamed.

*Climate.*—The climate is almost the same as that of the adjacent mainland. During the north-west monsoon the storms are more violent, and are seldom attended with thunder and lightning. The mornings in that season are generally clear, and nothing betokens a change of weather. It is not till about midday that the scattered clouds begin to pack themselves about the summit of Gunong Trusa. They slowly spread and descend, covering the whole sky, and finally discharge themselves in heavy rain, which is usually accompanied by a strong north-west gale. The climate is somewhat cooler than on the neighbouring Sumatran coast, owing to the narrowness of the land and the more frequent winds.

*Rocks and Soil.*—The dense vegetation renders it very difficult

to examine the geological formation of the islands, and as the streamlets are not rocky their beds and banks throw little light on it. The rocks that have been observed are limestone, sandstone, slate, porphyry, quartz, felspar, and trachite. No trace of metals has yet been found. The shores of the larger islands and all the small islands are of coralline origin. Like the Batu, Mantawe and Engano islands the coral islets do not take the lagoon form. The coral banks are constantly enlarging, and, with the spreading mangrove, will, as Mr Rosenberg thinks, in the course of ages fill up the whole basin among the islands, and make them one. None of the coral islets take their origin at a great depth, and a large number of them have been formed, in Mr Rosenberg's opinion, not by the proper growth of coral banks, but by the upheaval of the sea bottom. The subject, perhaps, requires longer and more extended observation. No facts showing a recent elevation of land are mentioned by Mr Rosenberg. On the eastern side of the Straits of Malacca the spreading of coral banks appears, in general, to be attributable to the waste of land. The grinding action of the waves is chiefly exerted at the summit of the ocean, and while the land in some places advances by the deposit of mud and sand, in others it is slowly worn down beneath the sea level. The rocky point gradually recedes landward and the coral zoophytes build over its former site. From the exposure of the western coast of Sumatra to heavy oceanic waves and to a violent surf, it is probable that in general the sea is gaining on the land. The scattered island groups that rise along the belt of soundings are more likely to be remnants of the land that once covered it, than the nuclei of larger islands. On the sheltered eastern coast the alluvium advances on the sea and will envelope the islets as it reaches them. The question of a gradual upheaval of the Sumatra-Peninsular or Sumatra-Borneon geological band is distinct from that of the increase or diminution of dry land from the action of the waves, although the one force might tend to mask the operation of the other. It must also be born in mind that the fact of Sumatra being on an ancient line of upheaval does not carry with it the corollary that the western coast continues to rise. Indubitable proofs of recent elevation must be furnished. No volcanic phenomena have been observed. The soil of the higher islands is rich and fruitful, that of the coral tracts is less productive.

*Vegetation.*—The vegetation is of the usual prolific character. The islands are masses of bright green, and the small coral islets present clumps of feathered cocoanuts rising above the other vegetation and surrounded by a band of white and dazzling sand. The principal useful plants are the cocoanut, sago and durian—each in great abundance,—the nangka, pinang, nipah, plantain, bambu, rattan, timber trees of different kinds, mangroves, paddy, ubi, kaladi and glaga. It is remarkable that the coast Casuarina (*C. littorea*), which is so abundant on the opposite shores of the mainland, and on those of the islands to the south of the Baniak, is not found on them, with the exception of a few trees at the extremity of Labuan Sohri which may have been planted.

*Animals.*—Fishes, shell mollusks, and insects are plentiful. There are several kinds of snakes, some of them tolerably large, iguanas and a few crocodiles. Among birds, water fowl predominate. The principal are a small white and an ash coloured heron, the black necked sea swallow, a large numenius and several pungas. Pigeons of different kinds, *perspicilata*, finches, *majanooides* &c, &c. Fowls are abundant, particularly on the smaller islands. The domestic mammals are the dog, cat, goat, rat and mouse. The wild ones, which only inhabit Tuwanku and Bangkaru, are black and brown monkeys, bats, squirrels and wild hogs. The last are so numerous that it is necessary to surround all the ladangs and gardens with strong fences to save the crops from their ravages. A few buffaloes have become wild.

#### THE MARUWI OF THE BANIAK GROUP.

*General condition, number, distribution and ethnic position of the race.*—Unlike the Mantawe and Niha, the Maruwi—at least those of Baniak—have lost most of the proper Niha-Polynesian habits, and adopted those of the Achinese and Malays. In their general condition and usages they resemble the petty and rude maritime tribes in other parts of the Archipelago who have adopted the dress and religion but not the arts and refinement of the more civilised Malays. The chief characteristic of such tribes is the absence of social development and energy of any kind. They have lost the spirit and the usages of the old Oceanic life, without acquiring a higher culture, and have sunk into a state of dullness

and sloth. The vicinity and maritime habits of the Achinese have destroyed all independent national action among the Maruwi tribes. Before the rise of the later Sumatran civilisations it is probable that they were able to maintain their freedom and nationality against the aggressions of other tribes of the islets and of Sumatra, and that with the loss of the warlike and predacious habits which characterise all the purer Niha-Polynesian communities, their energy and individuality disappeared also.

Achinese have permanently settled in the group, adhering to their own manners and customs, and owing no subjection to the Maruwi Tuwanku. They are chiefly descendants of immigrants from Tompat Tuan and Tarumon. They employ themselves in trade and in the cultivation of pepper and paddy, exporting coconuts, pepper, timber, tripang and fowls. The two Rangit islands are the favorite resort of all the trading vessels from Baros, Singkel, Tarumon, Analabu, Achin and Pulu Simalu, and it is not uncommon to see ten praus lying at anchor.

The Maruwi population does not exceed 354, or about 3 to the square-mile, which is considerably less than the Mantawe proportion. Pulo Tuwanku has 231 persons out of this small number and they are chiefly found on Tuwanku bay, the rest of the island being uninhabited, with the exception of a few ladangs to the east and west of the bay. Many of the smaller islands have no fixed inhabitants, and are only occasionally visited for fishing. The kampongs and ladangs on Tuwanku are :—

Kampong	Tuwanku	with	5	houses	and	23	persons.
"	Talalu	"	15	"	"	86	"
"	Sirohi	"	9	"	"	67	"
"	Rautan	"	4	"	"	19	"
Ladang	Tuwanku	"	7	"	"	19	"
"	Pangulu	"	6	"	"	17	"
"	Asaluan	"	6	"	"	20	"
			<hr/>			<hr/>	
			52			231	

The other inhabited islands are :—

P.	Simoh	.....	4	houses	4	persons.
	Lamun	.....	3	"	6	"
	Tailana	.....	1	"	2	"

Laraga.....	1	house	2	persons.
Arungan.....	1	„	2	„
Matahari.....	1	„	4	„
Bahlong.....	2	„	2	„
Sikandang.....	3	„	7	„
Meyla.....	1	„	3	„
Laurat.....	2	„	6	„
Balambak gadang..	4	„	9	„
Rangit gadang.....	5	„	12	„
Rangit kichil.....	3	„	5	„
Panjang.....	2	„	3	„
Bahgu.....	2	„	4	„
Bale.....	9	„	26	„
Ujong Batu.....	2	„	6	„

*Physical Characters.*—The Maruwi do not appear to present any traits that distinguish them from the Niha and the Mantawe, who are described elsewhere.

*Mental Character and Civilisation.*—All that we are informed as to the character of the tribe is that they are exceedingly indolent and ignorant. Although their manners and customs are those of Singkel, they are inferior in art and enterprize to the more sequestered and unmodified Mantawe, whose large houses are palaces in comparison with the hovels of the Maruwi. They are apparently a fishing tribe chiefly, and do not draw so large a portion of their subsistence from the forest as the Mantawe. Besides the ordinary garden vegetables they cultivate a little paddy. This and the manufacture of salt and lime are the only arts in which they are in advance of the Mantawe.

*Language.*—As no sentences are given by Mr von Rosenberg the phonology and annexed particles can only be described. It is clear from these and the glossarial composition that the dialect is of the vocalic Niha-Polynesian family and, like Nilan and Tilanjang, less modified by the consonantal Sumatran than the Mantawe.

Most of the words are vocalic, but there are a few with final *n*, *ng*, *k*, *t*, *s*, *m*. The vocalic character is shown in such words as *a-liwu* (Bata libung, Malayu nibong) *wida* (Silong *a-bit*). It frequently adheres to the archaic Sumatran and Peninsular phonology in preferring *e* to *i*, *a* or *u*, a predilection still found in



most of the languages of the Malacca basin, including some dialects of Malayu. Ex. *si-lahe*, Malay laki; *turen*, M. turun; *ma-lange*, Bat. *ma-langi*; *me-dem*, M. itam; *ahe*, M. api. It has the aspirate, liquid and elliptic tendency partially observable in several of the Sumatran languages, and much more prominently developed in the Nihan, Tilanjangi, Bima-Moluccan and cognate Polynesian phonologies. Ex. *oee water*, *u drink* (from *mi-nu*, *i-nu* &c) *aheé fire* (com. Oceanic form *afe*, *ape*, *api*, Polynesian *ahi*), *ohol rain* (com. Oceanic form *usa* &c, Pol. *uha*), *a-wahla red*, (Bat. *bara*, Mal. *mera*), *fitu 7*, *fulu 10*, *se-rifu 1,000*, *ula, island*, (*pulau*, *pulo*, com. form), *woh-noe coco-nut*, *biru, silver*, (*pirak Bata*), *bo hair*, (*bok Singkel*, *o-buk*, *boe Bata*).

Definitive prefixes occur similar to those of the cognate dialects, e. g. *si-lahe man*, *si-lawe woman*, *a-liwu nibong*, *a-laha the wareng tree*, *a-limo the citron pen-aru the aru tree*, *g-obi the ubi*, *gu-li lulang*, (*ri Singkel*, *Batta*). Qualitives and assertives have the com. *ma-*, *m-* &c, *me-dem black*, *ma-odin white*; *o-mi-du stand (du-du Ache)*; *ma-lange swim*, (*ma-langi Bata*); *u-me-gun laugh*, *u-me-ng-ké cry (man-angis Bat., Mal.)* &c. The super-added *u-*, *o-* that occurs in several of the assertives appears to be a contraction of *lu-*, *lo-*, as in *lu-ma-lao go*, (*lao Bata*). It occurs in lieu of the more common directive *di-*, in *lu-bawa below*, (*di-bawa Malay*) which has also an assertive application, usually passive, but in some dialects active, and contracting to *i*. The Baniak qualitative and assertive *lu* appears to be the *la-*, *na-*, *ra-*, *a-* of many of the other dialects—*Bata*, *Niha*, *Ache*, *Sunda* &c—generally qualitative, sometimes also substantival, and in *Niha* as in *Roti*, *Timori* &c. also assertive. In one Baniak word of *Bata* origin the liquid def. is postfixed, a Malagasy usage now best preserved in some of the *Bima-Moluccan*, *Papua-Polynesian* and *Micronesian* languages,—*tibo-la tin*, (*tima-ra Bata of Pak-pak*, *siembo-ra Bata of Toba*). The final *l* in *ohol rain*, (*tuha Pol.*) *bol-al*, *bal-al day*, *langkol sky (langit Mal. Bata &c)*, *lepu-l earth* appears to be also postfixal. The glossarial affinities of the language are examined in the historical section.

*Spiritualism*.—All the Maruwi tribes are Mahomedaus. Of their native superstitions we know nothing. There is only one priest in the Baniak islands.

*Dress.*—The dress is that of the Malays of Sumatra and the weapons are mostly of Achinese and Nias fabrication.

*Houses.*—The houses are wretched hovels, and bear the strongest testimony to the laziness of the Maruwi. It is only in the kampongs of Tuwanku, Talalu and Sirohi that some plank houses built in the Malay fashion are to be seen, but in a miserable state of decay and scarcely inhabitable. All the other huts are made of bambus, cocoonut and other leaves and are open to the wind and rain. Each is placed on a sand bank in the sea, several hundred yards from the adjacent island, on account of the swarms of mosquitoes. They have the custom of piling their ripe cocoonuts beside the huts in columns six to eight feet high.

*Food.*—Their food consists of sago, ubi, kaladi, rice, fish, shell fish and wild animals. When there is a want of better provisions they use the *inalaut*, a root one to two feet long, six to ten inches thick, with a thorny skin, and, in its raw state, yellowish. They skin it and roast it at a large fire. It is bitter and ropy.

*Agriculture.*—In the ladangs they plant paddy, kaladi and ubi, but, from their excessive indolence, in quantities too small even for their own consumption. It hence often happens that their provisions are entirely exhausted, and when a continuance of bad weather prevents them from fishing, they must starve. As a great portion of their subsistence is derived from the sea, they devote themselves to fishing and are very expert in it, especially in throwing a light harpoon, 10 to 12 feet long.

*Preparation of Sago.*—They prepare sago in the following manner. The stem is cut in pieces about 3 feet long, from which the outer bark is removed. After lying some days in the shade, they are brought into the house, and the whole family join in rasping them into a coarse meal with graters half a foot long furnished with teeth of nibong. The meal is then placed on a cloth stretched over a wooden tub, water is poured over it and the mass worked with the hands. The fine particles of sago pass with the water into the tub, while the woody substances remain on the cloth. When the sago has sunk to the bottom of the tub, the water is poured off and the meal dried.

*Other Arts.*—The only other arts practised by them are the

preparation of salt, burning shells and coral for lime, the manufacture of brown sugar, and twisting ropes of bark.

*Trade.*—The trade of the islands is insignificant. The principal imports are rice, tobacco, cotton goods and cutlery, and the exports coconuts, dried fish, shell-lime, a little tortoiseshell, tripang, birds nests, timber and coral.

*Family and Social life. Government.*—Nothing is mentioned as to the family and social life, save what may be implied in the resemblance of some of their manners and customs to those of Singkel and of others to those of Nias.

The chief authority is the Tuwanku of Great Baniak, who resides in kampong Tuwanku. Under him are Datus of whom there are in some cases five or six in the same kampong.

*History.*—Of the recent history of the Baniak islanders scarcely anything is known.

From the tradition of the natives with respect to Batu lanting it is probable that they have at some former period been invaded by Achinese. They still entertain a fear of a similar attack.

The present Tuwanku, who is a very old man, holds himself to be a descendant of the earlier royal family of Menangkabau, his grandfather having come from Pagar-rugong and married a woman of Nias.

With Singkel the Baniak islands fell under the dominion of the Dutch government. The only exception is the uninhabited island of Jawi Jawi which is a dependency of Tarumon.

The ancient history must be drawn from the ethnology. Mr Rosenberg believes that the islands were first peopled from Nias. As Nihan is generally spoken in addition to the native dialect, it may be inferred that a long and intimate intercourse had existed with the Niha prior to the monopoly of the trade by settlers and traffickers from the coast of Acheen. It is probable that the Nihans regularly frequented the group and that much intermixture took place, but it would be going too far to hold, with Mr Rosenberg, that the basis of the population is Nihan, and that the local peculiarities have been derived from different foreign sources, thus ignoring any native ethnic element whatever.

Mr Marsden, upon Malayan or Nias authority it may be presumed, classes the Baniak with the Nako-nako and Si-Malu

islanders as a people distinct from the Niha and known as Maras or Maruwi. The inhabitants of Nako-nako, who were probably described to him by the Padang Malays who resort there for coconut oil, are as fair complexioned as the Nihans.

That the Maruwi belong to the same branch of the Niha-Polynesian race with the Niha may be admitted, and it is also probable that they have gradually assimilated more and more to them, but there is no proof whatever that they are merely colonies of the latter. It is possible that, at some remote period, when the tribes of Nias spoke different dialects, they were derived from it, but the Maruwi possess in their language an incontestible evidence that the basis of the population, whatever it may have been in blood, was not a tribe speaking the existing Nilan. The Maruwi and Nilan are distinct, although closely connected, dialects.

Mr Marsden, in his essay on the Polynesian or East-Insular languages (1834), gives a short vocabulary, on the authority of Mr W. Smith, under the heading "Marras (near Nias)." This was probably obtained from the Nako-nako islanders. It consists, like his other vocabularies, of the first 10 numerals and of 24 other words or rather of 21, three being blank in the Marras column. The language, he remarks in his *History of Sumatra* (p. 479), "although considered by the natives of these parts as distinct and peculiar—which will naturally be the case where people do not understand each other's conversation—has much radical affinity to the Bata and Nias, and less to the Pagi; but all belong to the same class and may be regarded as dialects of a general language prevailing amongst the original inhabitants of this eastern archipelago, as far at least as the Moluccas and Philippines." In the 3d chapter of the *Ethnology of the Indo-Pacific islands*, it was observed that, from Marsden's vocabulary, the language appeared to be vocalic with a small proportion of consonants; and, from a comparison of the Nilan, Tilanjangi and Bata with the other Sumatran tongues, the general inference was drawn that the western islanders preserved, with considerable purity, the original vocalic and East Indonesian character of the Sumatran languages. Mr Rosenberg has appended to his paper a very valuable comparative vocabulary of 264 words, in the dialects of Aché, Singkel, Pak-pak, Toba and Baniak. The full number is not given in all

the dialects. The Baniak vocables amount to 126, and they are the first important contribution to the ethnology of the tribe. Mr Rosenberg expresses his surprise that so small a population should have been able to form an idiom of their own, from which it would appear that he attributes the peculiarities of the dialect when compared with Nihan, to the addition of vocables invented by the colonists after their first migration from Nias. He informs us that besides the native dialect the greater number of the inhabitants also speak Nihan, many of them Malay, and those on the eastern islets Achcan. We thus find in full operation on these islands the same cause of the change and assimilation of language which is at work in most of the ethnic provinces of the Indian Archipelago, as in other regions. It is probable that the native element has long been decreasing, as in Nihan.

To understand the relation of Maruwi, in its proper form, to the other languages of the Sumatran province, it is necessary to advert to their history as a whole. In the Section on the languages of Sumatra (Ethn. of the I. P. Is.) it was shown that three principal linguistic phases may be recognized, each of which has predominated more or less extensively during different periods in the history of the existing race and formation. This mixed formation may be termed the Himalayo-Polynesian, and the four most prominent of the phases it has assumed in Sumatra may be indicated as follows. Prior to the entrance of the Himalaic phonology, the vocalic Malagasy had succeeded to the Dravido-Australian; and it had prevailed so long and so exclusively as to confer one character on all the Sumatran dialects. The effect of the intrusion of Himalaic tribes during an era when the Himalaic like the Chinese phonology retained its ancient harsh and consonantal character, was to produce two phonetic phases. In the one the native phonology kept its ground and gave its soft and vocalic form to the Himalaic words that were received into the Sumatran vocabularies as Sanskrit ones were in an after age into those of the leading tribes. In the other the intrusive phonology predominated, and not only preserved the proper forms of the Himalaic vocables, but to some extent modified the native Sumatran ones. The Himalayo-Polynesian formation may thus be considered as having been evolved from the presence in Sumatra of three successive formations,

the Dravido-Asonesian, the Malagaso-Asonesian and the Ultraindo-Asonesian. Each of the two last had partially preserved and modified and partially destroyed the preceding formation. In the Ultraindo-Asonesian era the vestiges of the Dravido-Australian age appear to have been glossarial only, with some slight exceptions, but the Malagaso-Asonesian formation was still the basis one in the phonology of many of the dialects and in the ideology of all, although already considerably modified by the cruder Ultraindian. The vocabularies were exceedingly mixed. Most of the formatives and particles, the pronouns and numerals, and many of the other vocables, were of Malagasy affinity, while the remainder of the glossary was Himalaic or Ultraindo-Gangetic. The consonantal phasis was induced in those dialects in which the Himalaic element predominated over the vocalic and gave its own character to the phonology. The Achean, the ancient Malayu and other mixed phonologies possessing a considerable degree of harshness, were thus formed.

In an era subsequent to the first migration of the Tibetan and Chino-Tibetan tribes across the Himalayan barrier into India and Ultraindia, the Chinese and Tibetar phonologies began to lose their ancient character and to become soft, slender, elliptic and vocalic. This phonetic emasculation has affected all portions of the Chinese and Himalaic provinces, although in its development in different languages and groups it has exhibited much variety. It is still in progress, and the many partially sequestered dialects of the Tibeto-Ultraindian region have preserved examples of the ancient consonantal forms and of successive stages of decay. The slender and elliptic Ultraindian phonology was also communicated to the Sumatran languages, and it chiefly affected those of the western islets. As with the older consonantal wave, its presence was marked both by a fresh introduction of Himalaic vocables in the new elliptic or softened forms, and by the change it produced in many of the prior Sumatran words, Himalaic, Malagasy and Dravirian. The older phonology has been retained in a considerable degree by the Mon-Anam languages, and they strongly influenced the dialects of the Malay Peninsula and Sumatra up to a recent period. Indeed their influence is still in operation where the Siamese is in contact with Simang and Malay.

The fourth phasis is not in itself a distinct one from the preceding. It is not connected with any great linguistic revolution on the continent, but merely results from one of the native languages of Sumatra that was least affected by the elliptic Ultraindia phasis, having become expansive and aggressive, and thus acquired the character of a diffusive sub-formation. This latest influential phasis was that acquired by Malayu after it had become much softened by the presence of the less consonantal dialects with which it must always have been in contact as it expanded, and after its ideology had thrown off much of the ancient Malagasy character and taken a form more akin to the crude Ultraindian. The modern Malayu has deeply influenced and largely but unequally assimilated all the other languages. This Malayucising of the other Sumatran tongues has been in progress throughout the era in which the Malays have been the most numerous, powerful and enterprising of the Sumatran tribes.

Each of these linguistic phases of Sumatra was carried to the eastward by the navigating tribes of its coasts and islets, and was disseminated from island to island and group to group far over the Indo-Pacific seas. The latest or Malayan form of the consonantal phonology spread to most parts of the Indian Archipelago, the older and more consonantal Sumatran over Java, Borneo, North Indonesia, Micronesia and a portion of Papuanesia, while the elliptic chiefly predominated in East Indonesia and was thence diffused over Papuanesia, Polynesia and Micronesia. The existing Sumatran languages preserve remnants of the ruder forms given to the vocables by the primary consonantal Ultraindian phonology. These are chiefly found in Malay dialects and Achean. In Malay itself these forms have been softened. The secondary or elliptic aspirate Malagasy and vocalic Ultraindian and the archaic vocalic phonologies are best preserved in Nihan, Maruwi and Tilanjang. Mantawe has been partially and Bata considerably modified by the consonantal phonology. The proper consonantal tongues themselves possess numerous vocalic words of the Malagaso-Asonesian and vocalised Himalayo-Asonesian forms, and their consonantalism has long been in a state of slow decay. If the process of emasculation be not interrupted, it is probable that all the Sumatran languages will ultimately revert to the archaic vocalism or rather to modifications of it, elliptic in their general character.

From this account of the history of the Sumatran languages we are prepared to find in each of them numerous and often peculiar affinities with the more eastern tongues of the Indo-Pacific province, and in those of the more vocalic group—Batax, Nihan, Mantawe, Maruwi and Tiljangi —relations with the vocalic eastern languages that were formed prior to the predominance and diffusion of the Malayu. But as Malayu itself, in the old Sumatran or Malagasy portion of its basis, belongs to the same vocalic family, many archaic vocables are also common to it with the group in question and with eastern tongues, and some are even common to Malayu and the latter which are not found in the former. In all these cases it is necessary to distinguish as much as possible between the vocables, or forms of them, that have been carried eastward by the proper Malays and those which were disseminated from the Sumatran centre in the pre-Malayan era when the insular parent of the Malayu formed one of the dialects of the Sumatran vocalic group. The eastern dispersion of Sumatran vocables has proceeded in all eras and been conducted by various tribes. Hence not only different roots for the same idea, but different forms of the same root, have been carried from its shores. In the long and oscillatory succession of tribes, formations and dialects that have filled its history from the present epoch to that when rude Australoid hordes first gave it human inhabitants, a single navigable river like the Palembang, may have furnished many synonymous roots and variations of roots to the eastern vocabularies.

In Baniak we find Nihan, Batax, Malayan and South Sumatran words, and many others either peculiar or having affinities with eastern tongues. It is fundamentally a member of the Bata-Nihan group and its relationship to the other Asonesian groups has a similar range.

From the phonology, the pronouns, the prefixes and the postfixes of Baniak, and the known ideologic character of the other languages of the same geographical and glossarial group, it may be inferred that its basis is mainly Oceanic or Malagasy in phonology and ideology. The vocabulary, like that of the other Sumatran and Sumatro-Polynesian tongues, is chiefly composed of Dravido-Australian, Malagasy, Himalaic and Chino-Himalaic words. Its more archaic history is involved in that of the other



Niha-Polynesian languages, and must be investigated with that of the whole family. The proper object of a special consideration of a single tongue like the Maruwi is to establish to what group it belongs; and where the materials are only glossarial, this must be done by tracing the roots in the Maruwi forms in other Asonesian vocabularies, or in those foreign ones to which the mass of the Asonesian roots are referable.

The modern ingredients are chiefly Malayan, but some of the Nihan, Bata and Achean words are probably also recent. There are some slight traces of intercourse with Javanese.

A considerable number of the words are Malay of Singkel and Ache, especially the former. Ex. *bunga karang*, coral; *ungkung*, S., (*ungka* M.); *tumba*, spear, S., M. *tomba*; *kubur* grave; *telinga* ear; *utara* north; *selatan* south; *timor* east; *ber-laut* (seaward) west; *dado*, a chief S. (*dato* M. also *grandfather*); *turen*, descend, *turun* Mal. A.; *mesiaia*, poor, *miski* A. (*miskin* Mal. Arabic, but the Ban. may be *me-siaia*); *kaya*, rich, M. A., *kuning*, yellow, M. A.; *kilet*, lightning, A. (*kilat* M. Bat.); *guru* thunder, A. M. Words of this class whether directly or indirectly received from the Malays, belong to the Malayan or latest influential sub-formation.

There are a few Malayu words which must have been derived from the proper Malays, as they are not current in Ache, in the mixed dialect of Singkel or in Bata. Ex. *near* dekan, M. *dikat*.

There are also some non-Malayan vocables similar to Achean, to Bata and to Nihan, respecting which it may often be doubtful from the proximity of the tribes whether they have been borrowed from settlers, or are a portion of the archaic vocabulary common to the Baniak tribe and the adjacent Sumatran race to which they belonged. If the vocabulary could be resolved into ingredients derived from Niha, Bata, Ache and Malay, all such words might be referred to the Niha, Bata and Ache visitors and colonists, but as there is a large and distinct native element, the true history of these vocables can only be ascertained after the forms they possess in this N. W. group have been compared with those which they take in other dialects.

Amongst the purely Achean are *a-wula* run, Ache *da- blung*;

*omi-du stand*, A. *da-du*; words both from their form and their nature more likely to be archaic than recent.

From the much more numerous Bata list may be cited *bahba mouth*, Bata *baba*, Singkel, Ache *bawa*, Tilanjang *hawi* (h-b, p, as in the more aspirate Niha-Polynesian phonologies, e. g. Til. *hawi hog* for *bawi*, *babi*); *igong nose*, the Bata form of a common Sumatran and Indonesian vocable, Nihan *igih*, *iru*; *gaul plantain*, B. *gal*, *galo*, Singkel *galu*; *delok hill*, B. *dolok*; *wongi boat*, B. *bungki*, *lu-ma-lao go* B. *lao*; *ma-lange swim*, *ma-langi* Bata; *a-su dog*, B. Niha *a-su* (com.).

Amongst the words common to Maruwi with Nihan are *obo large*, Nihan *ibi*, Mantawe *ebe-yo*. (The N. and Mantawe forms are varieties of the same form, but the Baniak is an archaic dialectic form found in Malagasy and Polynesian); *mor-la sleep*, N. *mar*, *mur*, Mant. *mar-eb*; *bo*, *bu hair*, N. *bu*, Rijang *bu*, Bata *u-bu*—all elliptic forms of *buho*, *buok* &c; *x-tha man*, *a-taha* Niha, *taka* Tilanjang, the Baniak variety is a curt form of the aspirate Nihan; *awa tree*, N. *ewo wood*; *bawa*, *bowa moon*, N. *bawa*; *bungi bangi night*, N. *bungi*, *bongi*, Bata *bongin*. Some of the words found in both vocabularies are to be considered as archaic Niha-Marui and some as common to the various dialects of the ancient vocalic Sumatran, but others are evidently of Nias origin. The Niha vocabulary, it may be remarked, has been more Malaicised than the Marui, so that the ancient common glossary is probably better preserved by the latter.

A few words have special Mantawe affinities and a larger number South Sumatran (Rijang, Komreng, Lampong.) These must belong to an archaic and diffusive glossary.

Several words connect Marui with eastern vocabularies and especially with those of the trans-Javan or Bima-Timorian band, in which the elliptic phonology is also strongly marked,—*ma-odi-n white*, *m-uti-n* Timor; *a-hin teeth*, *wa-hine* Belo; *mehlu monkey*, Timor belo; *luan stream*, Ende *luvu*; *ahéé, fire*, Ende *ahi*; *u drink*, *ngi-u* Savu. These words do not necessarily prove that the Marui colonised the Timorian islands or Timorians the Baniak islands. For the present they merely shew that Marui was one of the ancient Sumatran vocalic dialects akin to Niha, Mantawe and Bata, and probably to many others now modified or

extinct—that its phonology underwent elliptic and aspirate changes like the Nihan, Mantawe, Tilanjang and Bata—and that from this Sumatran vocalic group several varieties of the same vocables were carried to the eastern islands. The Maruwi navigators may have founded eastern colonies as well as the Nihas and Batas, but a larger vocabulary must be examined before inferences so specific can be drawn. At present it is sufficient to remark that the vocalic, aspirate and elliptic phonology of the Timorian, Moluccan and Polynesian dialects, and a very large number of those forms of the insular vocables that are most prevalent in these groups, are found preserved in the languages of the western islets of Sumatra. The civilisation of the Niha and the vestiges of the pre-Hindu civilisation of the Bata, connect the old Sumatran race with that which most largely colonised the eastern islands; and the circumstance that most of the dialectic varieties of the Sumatran vocables are found in eastern vocabularies, can only be explained by the greater number of the maritime Sumatran tribes having in the same or in successive ages, voyaged to the eastward for trade, rapine, war or colonisation. In the presence of the Indian, Ultraindian, Arabic, European and Chinese navigation, and that of the Javans, Malays and Bugis with their improved vessels, the ancient Niha-Polynesian maritime art has decayed among the Maruwi, Niha and Mantawe, but the last still retain some traces of it, and in the Philippines, the Moluccas, Micronesia and Polynesia it continues to flourish with variable vigour. When it was in the ascendant in Sumatra, the fleets of Tapanooly Bay, of Tuwanku Bay, of Nias and the Pagai islands may have more than rivalled the Moluccan and Micronesian in the range of their voyages; and to the possession of these fleets we must ascribe the spread of the Himalaic race from Sumatra to the eastern confines of Polynesia.

The connection between the Maruwi vocabulary and that of the Niha, the Mantawe, the Tilanjangs and the Batas will be specially examined in describing the Nihas.

If we now view the Maruwi glossary on the side of its continental affinities we find that like the other Sumatran vocabularies it bears the impress of all the great formations that have been recognised in Asonesia. Of the words more particularly examined

below, the Pronouns, Definitives (annexed), and Numerals with the words for *Nose, Teeth, Hand, Ear, Fire, Moon, White, Large, Eat, Drink, Man, Mother, Child, Fish, Tree* (2) *Cocconut, Stone, Fire, Moon and Gold* are MALAGASY; that the words for *Hair, Eye, Earth, Hill, Night, Black, Dark, Small, Yes, No, Man* (1), *Woman, Brother* (or *Sister*) *Dog, Cat, Bird, Monkey, Snake, Tree* (1) *Plantain, Rice, Earth, Hill, Stream,* and *Ship* are HIMALAYIC (Chino-Himalaic, Scytho-Himalaic &c); and that those for *Water, Sun, Day, Star, Short* and *Sleep* are DRAVIRO-AUSTRALIAN.

Most of the vocables belong to the great Sumatro-Polynesian formation, but the archaic individuality of Maruwi in relation not only to Bata and the other Sumatran dialects but to Nihan, is illustrated by its possession of some forms having a peculiar connection with Himalaic or Malagasy and with eastern Asonesian. For example the 1st pron. *re-hu* has a distinct and very archaic connection with Malagasy. *Re* is a current Malagasy definitive, but Malagasy now uses *iza* as the prefix. When the language was first transplanted to Sumatra the pronominal root *hu, ku*, must have been free, and admitted of different preposed definitives. It occurs not only with the sibilant but with other forms of the liquid in different Asonesian vocabularies. *O-bo* large, is another example of the retention of an archaic Malagasy and Nilotic form (*o-bo-ma* Shangalla, *am-bu* Malagasy), *Niha* and *Mantawe* have another Malagasy form *i-bi, e-be*. The broad form is preserved in the New Caledonian *am-boi-da*. *Ahe fire*, preserves the Malagasy form *afe*, the common Asonesian being *afi, ali*. The Malagasy vowel is also preserved in *lahe man*. Examples like these show that the pure Malagasy was first deposited on the western islets—and probably also on the adjacent coasts—of Sumatra, and that there have been less frequent and extensive linguistic mixtures and consequent corruptions in these islets than in Sumatra itself.

To compare each of the vocables even in Mr Rosenberg's short vocabulary with those of all the other Asonesian and the connected continental tongues would demand a volume, and the results would be much less satisfactory and determinate than those I have derived from my general comparative vocabulary, and from the

consideration of the insular languages in the mass. The Maruwi is but one of some hundreds of dialects having a similar history, and the peculiarities of each of which are mainly due not to a difference in the succession of great formations and gradual ethnic revolutions which have resulted in making it what we now find it to be, but to the fact of so many distinct groups of tongues having co-existed throughout a long lapse of time, and given rise to various local linguistic currents. Each dialect, however much sequestered, has, from time to time, been affected by intrusive ones, giving rise to new special affinities and diminishing some old ones. Thus in proportion as Baniak replaces old words by Malayan its Nihan element decreases. As its special Nihan ingredients increased it became the less Batan, and the more it gained from other Sumatran tongues generally during its later history, the more must it have lost of those specific affinities to eastern vocabularies which arose at an earlier period. It is quite consistent with such a gradual restriction or localising of its more intimate relationships, that its general ethnic position with reference to the great formations of Asonesia, should remain little if at all changed. The mutual intermixture of a dozen languages forming one of the groups in a large family does not affect their relation to the family or that of the family to the wider alliances in which it has a place.

That the historical evidence furnished by the vocables may be the better understood, I have adduced a few in each class and in the first place indicated the Asonesian range of each of them, giving examples of those varieties that most resemble the Baniak. The formation by which the root was communicated to the islands is then mentioned, and one or more of the forms which it has in that formation are cited. As an exemplification of the full light which is thrown on the origin of the Asonesian vocables by taking not one but all or several of those that are prevalent in different vocabularies or in the same vocabulary with changes in meaning, I have in one or two instances appended the synonyms current in the other Sumatran languages and their derivation.

#### I. PRONOUNS AND PARTICLES.

The 1st pron. **rehu** (*re-hu*) has the Malagasy and Bata form

of the Semito-Libyan and Oceanic aspirate and guttural root hu, ku. To this it prefixes a definitive, a usage common to the Malagasy and Semito-Libyan with most of the East Oceanic pronominal systems. Re is a common definitive of the Semito-Libyan and Malagaso-Polynesian formations, and de, le, ne; ra, da, la, na &c, are variations of the same particle. Re is a Malagasy form (Ethn. P. II, c. v, sec. 6, sub-sec. 6).

Comp. *a-hu*, *iz-a-hu* or *i-za-hu* Malagasy (ku poss.), *an-a-ku* or *a-na-ku* Babylonian, *a-hu* Bata, *a-ku* Malay, *y-a-u* [probably from *i* (*z*)-*a*-(h) u] Niha, Kisa, *i-a* Lampong, Komreng, *si-a-k* Iloko, *da-ku* Malay, *na-ku* Balignini, *na-hu* Bima, *la-ku* Lobo, *ru-ku* Kaili, and *a-li-ku* Wugi, the nearest to the Baniak re-hu.

The 2d pron. **rio** (*ri-o*) appears to combine the same prefix with a contracted form of the common Niha-Polynesian root. The Bata ho and the Timorian ho, o (Timor, Roti, Lieti, Kisa) are the same variety. The prefix *ri-* is found in the Malay *di-kau*, Lampong *ni-ku*, Javan *di-ko*. The Belo *i-ri* is probably a contraction of a similar variety. The Tilanjanji baréé (*ba-re-e*) is an analogous form in which the root is represented by e (koe, kue being a common Asonesian form) and the labial prefix is superadded as in the 3d pron. *bo-hey* (comp. the 1st pron. *ba-kau* Bajo, *ma-sa-ku* Pasir, *mi-ta-ko* Sumba and the 2d *mi-ka* Binua, *ma-si-ko* Pasir). The Belo *i-ri* is an analogous E. Indonesian form, with the root elided.

The 3d pron. **dio** is Malay *dia*, *nia*, Landak *diyo*, Gorontalo *tio* &c.

The definitive prefixes *si-*, *a-*, *pen-*, *gu-*, *g-* are Malagaso-Polynesian. The sonant form occurs in Nihan *ga-*, *gu-*, Gebe *ga-* &c.

The qualitative and assertive *ma-*, *me-*, *m-* is the common Malagaso-Polynesian particle.

The def. postfix *-la*, *-l* is the *-na* of Malagasy and the *-na*, *-la*, *ra* &c of many eastern vocabularies. *La* also occurs assertively in *mor-la* sleep. It is used assertively in many Niha-Polynesian languages.

## 2. NUMERALS.

The numerals are the Malagaso-Polynesian, 1 *asa*, 2 *dua*, 3 *telu*, 4 *ampe*, 5 *lima*, 6 *anam*, 7 *fitu*, 8 *walu*, 9 *siwa*, 10 *fulu*. The only departures from the Malagasy forms are *asa* 1, *ampe* 4 (Aché *ampet*, Malay *ampat*) and *anam* 6 (Malay &c), the Malagasy prefix being *e* in 1 and 4 and not *a*, *am-* and 6 wanting the final *m*. The Nako-nako forms are somewhat different, and several of them have the postfix *-bo* or *-o*. They are 1 *sawo*, 2 *due-o* (Malagasy *due*), 3 *tlo-bo*, 4 *atu* (for *fatu*), 5 *lima-bo*, 6 *anum*, 7 *iatu-bo*, or *itu* (for *fitu*), 8 *ulu-bo*, 9 *siwa*, 10 *nolu*.

## 3. NAMES OF ATTRIBUTES.

**White.**

**maodin** (*ma-odin*) B., **uding** N.\* Sumatran and *com.* Indones. *puti* &c. A nasalised form is found also in Timor *mutin* and Bali *puting*, of which the gutturalised Borneon *putik*, *puti* are variations. Bisayan has *busag*. The elision of the labial initial occurs also in Malu *ute ute*, Mangkasari *utim*, Formosan *ma-usi* &c. The prefix is the *com.* Malagaso-Asonesian qualitative *ma-*, still prevalent in E. and N. Indonesia and Polynesia, although rare or modified in Sumatra. The *n*, *-nġ* may be simply the nasal final often taken by the Malagasy vocalic words in the consonantal Indonesian dialects. But it is possibly the definitive as in the Cerami *puti-ra* &c.

**MALAGASY** *futsy*, *fuchi*, *futi*, *fusi*. The sibilant is preserved in the Niha *a-fusi*, Tidori *ma-busi*, Madura *a-puse*, Karang *rompos*, Celebesian *ma-busi*, *ma-busa*, Bisayan *busag*, Formosan *ma-usi*. The root was carried eastward in this form by the Micronesian stream (Pelew *howse*, Ualan *was*, *was-was*, *e-wuet*, Radak *e-mus*, Rotuma *fis*), but not by the Papuanesian or Polynesian.

The Malagasy vocable is African,—*fuchi* Agau. The root in various forms—more often *fa*, *ba*, *fu*, *bu* &c, than *fi*, *bi* &c, and with or without prefixes and suffixes—is the most prevalent Semito-Libyan; *abiad*, *abiar* &c Arabic, *hais* Saumali, *hathi* Galla, *ht* Egyptian, *fasi*, *afads* &c Sereras gr., *ped*, *bisa* Bode, *padi* Pika, *i-basi-le* Ngambana, *fade* Mandara. The final changes frequently

\* B., Baniak; N. Nako-Nako (or Marsden's).

from the dental to the liquid, *e-fur* Mso, *e-buri* Bute, *o-wuru* Okam *sa-biul* Ham, *fali* Hausa (comp. fade Mandara), *puru* Gebo gr. *a-pura* Boko, *a-hule* Gadsaga, *a-pfura* Bumbete, *fora* Ntere, *mbara* Ekamtulufa gr., *bul* Bornui, *bu-buli* Goali, *ko-pula* Bagbalan, *a-fire* Susu, *se-fire* Tene. The labial root simple and duplicated is also common *i-fo*, *i-fa*, *a-fe*, *pfu*, *ma-fo*, *e-fu*, *pu*, *e-we*, *we*, *fufu*, *fifu*, *bubu*, *e-pupa*, *popo*, *a-puwa*, *i-fifi*, *ha-pup* &c, &c. These radical forms and the common variety in which the final is a liquid *l*, *r*, rarely *n*, are not to be considered as derivatives from Semitic, but as having descended, like the cognate Semitic terms, from the mother formation. The root is nearly universal, and it occurs with a liquid final in the Scythic, Dravido-Australian, and —applied to *silver*, *gold* and *iron*—in Semito-Libyan (*bir*, *bir-ta*, *fil-at* &c, &c). While the rarer African form *fuchi* [=fusi] is current as *white* in Malagasy, the more common African *pula*, *pura*, *bul*, *puru* is preserved in Malagasy in one of its secondary applications, *moon* *vula*. The root is Chino-Tibetan as well as Scythic but with a final guttural *pe'*, *pa'*, *pue'* &c Chinese, *phyok* Thochu. Khamti also preserves the *k*, *phyuk*. In Burman Naga &c it is lost, *phyu*, *a-po* &c. See Ethn. Part II., c. v., S. 11.—**IRON, SILVER.** [See Appendix, **WHITE.**]

### Black.

**medem**, (*m-eden*) **B. mitome**, (*m-itome*) **N.** Sumatran and Indones. com. Malay &c, *itam*, *Niha*, Pampangan *a-itu*. The *o* of the **N.** variety is found in some Borneon and Celebesian vocabularies, *m-etom*, *ma-iton*, *mo-itomu* &c. The final becomes nasal in some dialects, *itang* Tranganu, *idong* Sunda. The Javan *chemu* has an independent connection with continental forms of the root.

**ULTRAINDIAN**, *dam* Siam, *nam* Khamti, *den* Anam, *cham* Singfu, *ga-tscham* Bodo, *ga-sam* Garo, *chang* Mon, *chang-lo* Changlo. The root is probably current with other meanings (*blue*, *green*, *dark*, &c &c) in other Himalaic vocabularies. Tengsa and Nogaung Naga have for *green* *ta-cham*. The root is probably Tatar — *chara*, *chona*, *shem-el* &c.

### Dark.

**malawa** (*ma-law*). Rijang *black* *ma-lau* (see **Black**). **HIMALAIC.**



**Large.**

**obo** (o-bo) Niha *i*-bi, Mantawe *e*-be-*yo*, Polynesian pu, New Caledonian *am*-boi-*da*.

MALAGASY, *am*-bu, *a*-bu, bei, be. African *o*-bo-*ma* Shangalla, *a*-vee Tigre. Scythic, *e*-mo, Fin *am*-ba Tungusian &c.

**Small.**

**ada-ada**. [The Niha idi, Mantawe *te*-*te*, Bata etc, Polynesian *iti*, *iki*, *chi*, Australian *miti* &c &c is a different root, of Dravirian origin].

CHINO-HIMALAIC. Chin. *short té*, *dé*, *to*. Horpa *ga*-*de*, Thochu *thatha*, Lepcha *atan*, Burman *ato*, *to*. The Himalaic expanded form Bhotia *thundung*, Miri *adyadag*, Dhimal *to*-*toka*, is found in Niha *aduko*, Cerami *tuktuk* &c.

**Short.**

**wida**. Silong *a*-bit, Onin *fisio*, Utanata *me*-*meti*, Australian *small miti*.

DRAVIRIAN, imiting Kol. The other Dravirian forms of the root are also found in Asonesia. The broad Uraon *phuda*, Garo *bandok* is represented by the *pandak*, *pendek*, *ma*-*pundu*, *ma*-*pundi*, *ma*-*puncho*, *ponok* of Sumatran and other Indonesian vocabularies. The Bisayan *me*-*a*-*put*, *ma*-*li*-*pot*, Polynesian *poto*, *poko* may be a contraction of forms in *nd*, or a pure Dravirian form (*puda* Uraon, *putti* Telinga &c).

**Yes.**

**anga**. Jav. *ingge*, Mantawe *onon* [Rajmahali *onon*] Philip. *oen*, *uan*, *un*.

HIMALAIC in Bhotian, *inge Gond*, (? *in*-*ge*), *anga Kiranti*, an *Milchanang* &c, *ongo Bodo*, *onon Male*.

**No.**

**baon**. Binua *beh*, Simang *mina*, *biak*, Ende *amuna*, Lampong, Komreng &c *mawot*.

CHINO-HIMALAIC. Chin. *bo*, *mo*. Bhotian &c *ma*, *me*, *men*, Naga *mau*, Thochu, *Kiranti mang*, Kol *bano* &c &c &c (Scythic *abu* &c).

**Eat.**

**mangan** (*ma-ngan*) Sumatran and *com.* Indon. also, *mi-ngan* Lamp., *ma-kan* Malay, *mi-ngan-de* Parigi, *me-nam* Aru, *ma-nga* Mille, Wiradurei, *a-rara* Jalakura, *fa-gi-nono*, *pa-ti-ngungu* Tilanjang. The last is the Malagasy form when applied to *drink*, and in Tilanjang the same form is both *eat* and *drink*, the word for *water* being added in the latter application (*fagi-nono lewo lewo*). A similar root is Draviro-Ultraindian, but the resemblance to the Malagasy is much closer.

MALAGASY *mihhi-nana*, *ho-m-ana* (see *Drink*).

**Drink.**

**u**; Mantawe lo, (for no) contractions of a *com.* Indonesian word *mi-num* Bata, Malay &c, *mangi-nu* Parigi, *maki-nu* Lobo, *i-nu* Sumba, Polynesian, *ngi-num* Mangkasar &c, *ngi-u* Savu (Baniak u) &c &c.

MALAGASY *mi-nunu*, *mi-nono* (a variation of the root for *eat*, *nana*, and preserved in the Tilanjang *nono*, *ngungu eat, drink*). It is a common African root, *nu*, *nyu*, *ni*, *nin* Zimbian &c. In African languages and in Malagasy it is also applied to *milk*, Malag. *ro-nono* subs., *mi-nono* verb, Africa *nono* Hausa, Limba, Nufi gr. Mandingo fam.; *neni* Grebo gr.

The Tibeto-Ultraindian root has also been imported into Indonesia. Bhotian *thung*, Kiranti *dung*, Sunwar *tung*, Bodo *lung*, Mon *sung*. Naga *tunun*. Indonesia has *tunu* Bima, *tinu* Roti.

The North Dravirian *unah*, *ona* &c has probably a radical connection with the Africo-Malagasy *nunu*.

**Sleep.**

**morla** (*morla*); Niha *mur*, *mar*, Mantawe *mareb*, Onin *marava*, Bima *maru*, Polynesian *vale*, Tasmanian *malong-na*.\*

DRAVIRIAN *maru* Karnataka; Bodo *mudu-bai*, *mudu-lang*, Lepcha *mithu-p*.

The MALAGASY *tory*, *matory* [Zimbian *tolo*, *dere*, *dale*, *lale* &c] is one of the more common Asonesian vocables—*turi* Pasir, *a-tuli* Balignini, *pa-turu* Tojo, *ma-dura* Mille, *ma-tu* Tarawa &c.

\* The root may be *ra*, *re*, *le*, *ru*. The Mantawe variety favours this analysis *ma-re-b*, *me-re-b*.

## 4. NAMES OF PARTS OF THE BODY.

**Head.**

**ulu** B. and N. Sumatro-Polynesian, common.

**MALAGASY OR ULTRAINDIAN.** The Asonesian ulu is a pure Scythic form—ulu, Samoiede—and, as is so frequently the case, the Scythic root is current both in the Semito-African and in the Himalaic provinces, rendering it uncertain from which the Asonesian has been derived. In the former the Malagasy luba, lua, loa, has numerous sisters, lu, olu, alo, ar-k, our, ru-s &c, &c, the liquid being the most prevalent Caucaso-African root for *head*. The form which the common Oceanic word for *hair*—vulu Malagasy, bulu Sumatran, fulu Polynesian—takes in several Indonesian languages, welua, bilua &c and the Paser, Bajo and Sambawan form for *face* rua, favor the derivation of ulu from the Malagasy lua. In the Indian and Ultraindian province the term is exceptional, being only found in Singhalese olua and in the Yuma and Manipuri group alu, lu. For *face* and *hair*, however, the term is Hindi rukh *face*, alak *hair* (comp. luk hair Binua, lug-in Sumba, ruk-atu Savo (atu *head* Tarawa, and, with slight variations, com. in Asonesia). The Malagasy full form luba is allied to these, but its more immediate grouping is probably with the Semito-African rosh, ras, rus, arus, rusa (Haragi), *head*, which again are Caucasian, ras *hair*, and Scythic—rasz *head* Hung., ars-em *head* Ugr. (*face* rosa, rozha &c Fin, ortza Hung).

**Hair.**

**bo** B., **bu** N.; bu Niha; Sumatro-Philippine, Sumatran, Indonesian com.; the full form being buk, bu', bo'. Ubu' Bata, bu' Rejang, buho, buok, buwa Lampong, Borneon and Philippine, poho Polynesian. The Malay rambut appears to be the same root with the liquid pref., *ram-but*, (euph. for *ra-but*) comp. *du-poch* Formosa, *am-puwa* Onin.

**CHINO-HIMALAIC**, pu Bhotian &c, bo, mo Chinese, ub Kol &c *hair*; bu, buho, bohu Kol *head*. The Malagasy and Semito-African vulu, bulu *hair*, *feathers* &c, is equally common in Asonesia.

**Eye.**

**mata** B. and N. Sumatro-Polynesian, com.

**CHINO-HIMALAIC.** The Malagasy maso is connected with the

Zimbian sibilant root for *eye, face, head*. The Zimbian labial pref. gives plural forms for *eye, maso, mato, mezo* &c, but *maso* is a regular singular form for *face* in the S. E. Zimbian group adjacent to Malagasy. The Galla *mata head*, is probably also Zimbian (i. e. *ma-ta*; Zimb. *mu-tua, mo-te* &c). The Padsade *masa eye* (prob. *ma-sa* Zimb.) is a form similar to the Malagasy. In Asonesia the Borneon and Celebesian *mato*, Rotuman *matho*, resemble the Malagasy in the final vowel, but it is probable that they are merely variations of the common *mata*, which is Tibeto-Ultrindian in the Anam, Ka, Chong, Manipurian, Garo, Kiranti, Simang and Binua form, *mak, mat*, the more com. Himalaic forms being *mot, mok, mig, mik, mit* &c. [See Ethn. App. B. and D. to chap. vi., Part II.—*voce Eye*].

#### Nose.

**igong B., ihong, iahong N.** Bata *igong*, Iloko *ugong*, Formosa *gong-os*, Rijang, Lampong *iyong*, Malay, Nias &c, *idong*, Javan *irong*, Borneon *urung*, com. Indon. in diff. forms.

MALAGASY *uru, urun, oron, urong* (probably a contraction of the Scytho-African *murun, burun* &c.)

Semito-African *mur-ghum, mura-ef, muhurah, muhar*; muddo (Kaffa); *norune* (Gadsaga); *e-pula, puno, mbula* (S. E. Zimbian) *miare, nyore, mer, nyor* (Gurma gr.), *mola, mero* (Grebo gr.) *imu* (Yoruba gr.), *milindo, amin* (Bulom gr.) *bihl* *Pepel*; Caucasian *mali, mirr, mara, mahar* &c, Scythic, *oforo* Tungusian, *burun, burin, parun, murun*, &c, Turkish. The same root, with the dental postfix, is *mouth* in Malagasy *mulutu* and *lip* in Scythic, Asonesian &c.—[Journ. Ind. Arch. ix, 226 &c]. The full Scytho-African forms for *nose* are also preserved in Asonesia *porong* Manahar, *murung* Wiradurei, *muru* Peel Riv., *moral* Moreton B., *wirin* Onin, *birimbu* Utanata (comp. *wiling lip* Australian, *bibir* Malay &c, *bir* Japan).

#### Teeth.

**yeng B., ahean, ahin N.** shon *Mantawe, wahine* Belo, *wahang* Manado, *wasi* Mangarai, *isi* Borneon, Celebesian, *ngisi* Kaili, Ende, *nih* Ende, Timor, *nehan* Timor, *ngifin* Tagalo, *nifan* Onin, *nipun* Sumatran, *nifo* Hoorn and C., Pol.. Very com. in various forms, (fi=hi=si).

MALAGASY *nifi* (*ni-fi*). In Africa *ni* is a common root *ni*, *nyi*, *no* &c—and in some vocabularies with prefixes or postfixes *nyi-ri*, *ni-re*, *fi-nin*, *ke-nin*, *pu-nyi*, *di-ni* (pl. *mi-ni*). *Ni-fi* appears to be this root with the Semito-Libyan labial def. postfixed in accordance with the more common usage in place of being prefixed as in the Fulup *fi-nin*, (pl. *gu-nin*) *Pepel pi-nyi* (pl. *i-nyi*). The root also occurs in the double African form in Indonesia *nin*, *ngin* Mille, *nini* Aru. The Malay *gigi* appears to be a hardening of *ngingi*, *nini*, from the duplicated or plural form *nifi-nifi* or *ninifi*. The Tagalo *ngi-pe*, *ngi-pin*, Hoorn and C. and Pol. *ni-fo* may connect the Malagasy form with the broad Asonesian *ni-pun* Sumatra, *ni-fan* Onin, *ne-han* Timor &c &c, but some of these may be of Dravido-Ultraindian derivation, Drav. *pal*, *palla*, *pallu*, *palk*, Milchanang *bung* [Scythic *pane*, *pankt*, *ponk*, *pin*, *pu* &c], Lepcha *apho*, Newar Singpho *wa*, Abor *phi*, *ipang*, Naga *pa*, *wa*, Siam *fan*, *fuan*, Kambojan *tim-bang*. The Chinese and Tibeto-Burman roots are different. The African *nin*, *ni* &c, as well as the other common African term *sin*, *dsin*, *zo*, *zu* &c, are Semitic, *sin* Arabic, *sinun* Arabic of Adirar, (? Himyaritic), *sinon* Gara, *sinin* Mahrah. From the Zimbian *di-ni*, pl. *mi-ni* &c, it is possible that in the Semitic term *si* was archaically prefixal, and the primary form *si-ni*, *si-nin*, *si-non* &c. Comp. the Malagasy *lila tongue*, the African *nene* &c *tongue*, and the Caucaso-Scythic *nin*, *nina*, *nil*, *nun* &c *tongue*, *nose*, terms closely related in archaic glossology to each other and to *tooth*. But in most of the Zimbian vocabularies the sibilant is preserved, (see Journ. Ind. Arch. ix, 208) and the Caucasian *sibi*, *sila*, *zil*, *ziul*, *zulve*, *kizu*, the Turkish *shil* and the Tibeto-Burman *so*, *syo*, *syu*, *swa*, *swe* &c, make it clear that the primary Semito-African term was the Scytho-Caucasian sibilant with the liquid terminal (*sil*, *sin*); that in the forms *sinin*, *sinun*, the superadded liquid is the Semitic pl. postfix; and that in the African vocabularies in which *ni*, *nin* &c, appears as the root, the true root has been elided. In the Asonesian vocabularies in which the sibilant or the pure aspirate sometimes takes the place of the aspirate labial, the variations are attributable to the strongly aspirate propensity of the Niha-Polynesian phonology, and to the facility with which the aspirates of all the organic classes of sounds pass into each

other. Thus in the Polynesian group *f* becomes *h* in Hawaiian and Maori, and *h* becomes *s* in Samoan and Fakaofa. [Ethn. Part I, ch. 3, sec. 1]. The aspirate and sibilant forms for *teeth* are evidently not derivatives from the broad Tibeto-Burman *swa*, *swe*, &c.

### Hand.

**anaku** N. The word is not given in the Baniak voc., but it has *gau arm* and *gau anangan finger*; *tangan* Sumatran com., *tanang* Madura; Indon. com.

MALAGASY *tanana*, (*tana-na*, comp. *mi-tana* to seize) to which the Madura *tanang* and Baniak *anangan* (for *tanangan*) adhere more closely than the prevalent *tangan* &c. The root *ta* (often also reduplicated, *tata*) is found throughout the entire length of the Scytho-African band (Scythic, Caucasian, Semitic, African) as *hand*, *finger*, *arm*, also *foot*, *toe*, *leg*. It takes final *n*, *l*, *m* &c in several other vocabularies, e. g. *tono* Kamschatkan, *udan* Samoiede; Africa *tando hand*, *foot* Musentandu (with the words for *arm* and *foot* conjoined), *ndam* Bagba, *na-tale* Gurma, *itan-ukod foot* Anan, (*ukod leg*, *itan* radically *hand* or *foot*), *tandsame foot* Gadsega, *danza hand* Nyamban (but in the S. E. Zimbian group the duplicated root *ndada*, *ntata*, pl. *ma-ta* is the proper form, as in Egyptian). The Malagaso-Polynesian *dimy*, *limi* &c "five", "hand", is *finger* and *toe* in Zimbian *lemi*, *liemi*, *liam*, *lembu* &c.

### Ear.

**telinga** com. Sumatra-Rotuman *talinga* &c.

MALAGASY, *talinho*, *tadign* &c. Semito-African *adan*, *aton*, *ato*, *etu*, *eti*, *tulo*, *tulu*, *tula*, *tuli*, *kuni-na*, (*h* for *t*), *kune*, *gunu-fa* &c. The Malagasy adheres in its root vowel to the Gara *a-zan*, Gonga *ahi-sa* and Soa (*adanah*) forms of Semitic. The Malagasy *sufina* is also Sumatro-Polynesian (*suping*, *kuping* &c).

## 5. WORDS OF FAMILY AND SOCIAL RELATIONSHIP.

### Man.

1. **atha** B. (*homo*) *taka* Tilanjang, *ataha*, *ma-chua* (*chua* for *tua*) *male*, *Niha*, *ma-tau* Mantawei, *tau* Timorian gr., *tano*, *tani* &c. Philip. *hatue*, *hatua* &c Borneon. *Father*, Philip. *hatha*, *utha* &c., Pol. *mo-tua* &c.

HIMALAIC, *te' man*, *husband* Simang, *tanga generic*, (*husband*, *wife*) Kasia, *tang Naga*, *generic* (in *tang-nyu wife*) [Comp. *jan-tan*, *male*, Malay (*jan* is a root for *male*, Sanskrit &c), *a-toni*, *man*, Timor, *tane*, *tangata*, *man*, Polynesian (whence *kanaka*, *kane*) &c], *dagh-po*, *jako husband* Bhotian, *dach* Milchanang, *thong-po male* Changlo, *thuk male* of animals Khamti, *due ib.* Anam, *tho ib.* Burman. The Simang *te'* and Tilanjang *taka* preserve the guttural of the older Himalaic forms.

The root is a Scythic one and very widely diffused, but in most vocabularies it signifies *father*, e. g. *ata* Chukchi, Turkish, Ugro-Fin (*atei*, *ota* &c), *thei* Anam, *ta* Kambojan, *ata*, *nda* &c Africa. The Ugrian double form *tato*, *dadei* &c is still more common, or rather it is universal, being sometimes current for *grandfather*, *uncle*, *chief* &c. where there is a separate word for *father*. In Africa it is the proper Zimbian term, *tata* &c the Semito-Libyan being the labial *aba*, *baba*, *bawa*, *ba* &c. (also Scythic and universal). It is Asonesian, *tatai* Philippine &c, *dato grandfather*, *chief*, Malay &c.—Dravirian, *tande*, *father*, *tata grandfather*, —Indo-European *dada* &c.

2. **silahé** (*si-lahe*) B. (*vir*). Com. Sumatran and Indones., (*di-lahi* Bata, *laki* Malay &c &c, *rahi* Bima).

MALAGASY, *lahy*, *lehi-lahy*, *la-lahé*, *la-lahe*, *la-lae*, *la-lae-t* (Bata *lai*, Malay *lai*, *laki-laki*, *la-laki*, *la-lahe*, *arake-t*). Comp. *rai* or *ray*, *ranga-hy* Malagasy, *langa-i* Celebes. The root is Scytho-Semitic, and the final *h* (frequently convertible to *s* or *k* in Malagasy) refers the word to the Semitic form of a Scythic term, *Mahrah* reg, *Gara* reg, *raj*, Arabic *ruj-ul*, *raj-al*, *raz-el*, Caucasian leg (Osetic). Turkish *er*, *ir*, *erçek*, *erkek*, *arini* &c, Mong. *are*, Ugrian *alma*, *ulmo*, *ohrs*, *lize*, *ilset* &c. The pure root is also Draviro-Australian *al*, *ala*, *alu*, *horh*, *horro*, *leh*, *leah* &c; Indo-Eur., *er*, *air*; and Chino-Ultraindian, *lan*, *la*, *rin*, *ling*, *lu* &c. The guttural final or suffise is found in some of the Ultraindo-Gangetic forms. In these it is probably the Tibeto-Ultraindian postfix, but it may be merely the final *n*, *ng* of Chinese &c gutturalised. Comp. *Mikir a-lo male*, *Changlo lago male* (of some animals), *Lau lo-k child* (generic), *Abor mi-lo husband*, (*mi-yeng wife*), *mi-lo-ko boy*, *Singpho la husband*, *la-sa male* for the lower animals, (*num-sa female*) *Kumi loh male* (small animals), *luhi*

*male* (birds). The Ugrian *al-ma*, num &c is also found in Africa or-*m* Tumali, har Tumbuktu, ru-*ma* Egyptian; Mbarike u-rom, Tiwi *nom*, Galla n-um &c and probably also in the Semitic generic ad-*am*, while the other Ugrian form *ilset*, *lize* is not only the type of the Caucaso-Semitic and Malagasy *rej*, *raj*, *lah*, *lahet*, but of the Kandin *elis*, *Mandara shile*, &c. The Baga *i-ruyu-ni* (pl. *a-rugu-ni*) has the Semito-Malagasy form.

The Malagasy generic word *olona man*, (Asonesian *orana*, *orang* &c) is a modification of the Ugrian form current also in Africa, *oruni Landoma*.

3. *ala N.*, *Bata hala*, *lai*. The *la*, *na* of the generic *si-ra* or *hi-ra* of Nihan and *si-nana* of Mantawe. *La*, *ra*, *na*, *nana* &c appears to be the same root that is contained in *la-hy*, *la-la-ki* &c, *Balignini la-la*, as well as in *la-we roman* and in the Malagasy *olo-na*. (See *Woman*)

### Woman.

**silawe** (*si-lawe*). *Niha hira lave* or *sira lave*, also *sialapi* (*si-a-lapi* for *si-ra-lapi*), *Rijang si-ka-lawe*, *Mantawe si-nana-leb*, *Sasa' k-lipi-nina*, *Aru man lifi*, *Viti a-lewa-lewa*, *Samba girl lipa ululana*. The *la*, *li*, *le* of *la-ve*, *la-we*, *la-pi*, *li-pi*, *li-fi*, *le-b*, *le-wa* appears to be the generic root for *man* found in the masc. *la-hy*, *ranga-hy* of Malagasy. The final *ve*, *we*, *wa*, *pi*, *fi*, *b* appears to be the fem. root found reduplicated or with a prefix in the Malagasy *vave*, *vavi*, *vaivave* &c and Asonesian *vaivi*, *babai*, *mabei*, *mabe*, *bawi*, *babi-ni*, *vahi-ne*, *mobe-ni*, *wawi-ne* &c &c. The root occurs alone in the Sunda *we*, *Wugi bei*. If *la-hy* or *la-ki* and *la-we* were respectively *man* and *woman* in archaic Malagasy, it would follow that *hy* or *ki* was the archaic Semito-Libyan guttural masc. particle still current in Hottentot and of which traces are preserved in the Semitic pronouns. (E. II, c. v., sec. 6). It remains to enquire if it had a similar power in archaic Caucasian and Scythic. *Ku*, *cho* &c occurs as a masc. root in the latter.

### Father

**uau**. This is evidently a softened form, but as there is no other example of the kind in the Sumatran group and it is not obviously referable to any of the current terms, its affinities must remain undetermined. There are several eastern terms from which such



a form might be derived, upua Buton, tuama Celebesian &c (ama ama Tilanjang). The Malay wa is probably an allied term.

### Mother.

**nene.** Bisayan nanei; the more common form of the root is inang, ina &c. The Baniak form is current in other vocabularies as *grandmother* and *grandfather*, nene Malay, &c, nini Sambawa, Wugi, nono Tagalo, Pamp.

MALAGASY neny, reny, nini. African nene Eulah, Isiele, ene Yala, inani Dankali, ina Tumali, Kandin, Mandingo, anen Kanyop, ni, ne, nye, na *com.* Scythic, nene, ini, ana &c Turkish, ani Tungus. &c &c ; Chino-Ultraiidian aniang, nanā, nanc.

### Child.

**anah.** Sumatran, Indonesian *com.* anak, kanak Malay &c, sanak Lampong.

MALAGASY zanaka, zana, zaza. Africa,—Zimbian *mo-ana*, *mo-anaka* (S. E.), *mo-anaku* (Basunde); Hausa da, dana, daka. If za be the root the affinities are Semitic, Caucasian and Scytho-Iranian.

### Brother, Sister.

**agi** (with the qualitives of sex *si-lahe*, *si-lawe*). Mantawe *sister* bagi, vagi *brother* or *sister* Kagayan, pokh-lan *br.* Bawian, paga-ly *br.* Magindanau, bug-to *br.* Bisayan, weko *br.* Viti, bijom Tobi.

HIMALAIC. Bhotian *elder br.* phogem, Namsangya Naga elder *br.* i-pho, Singfu pu, Turkish *brother* ub'agim, Ugrian pok-ysb-wok &c; Fin weiko, Yeniscian bitsch, Turkish bitschei, Milchanang byach, Khamti *elder br.* bi-tsai, pi-tsai, (*younger* nong-tsai) Bengali *sister* bhagini. [The words are not included in Mr Brown's and Mr Hodgson's comp. vocabularies. The Scythico-Tibetan labio-guttural root will probably be found in Himalayan or Ultraiidian dialects in forms similar to the Asonesian].

### G. NAMES OF DOMESTIC AND OF SOME WILD ANIMALS.

#### Dog.

**asu** (*a-su*). Niha, Bata, Ache and *com.* in Indonesia (Javan, Timorian chain, Celebes, Borneo, Philipines).

HIMALAIC *com.* Naga su, hu, *ta-su*, *a-z*, &c; Manipuri *gr.* thu &c; Anam, Ka, Chong, sho; Kiranti *ko-chu*. The Indonesian form has been derived from the Naga variety and is one of the numerous vocables that were carried to Sumatra and the eastern islands by

that branch of the Sifan-Irawadi tribes which preceded not only the Burman but the Karen as the dominant and most influential people of the Irawadi basin and Arracan. The Naga, Manipuri and Yuma groups now best represent the dialects of this branch in Ultraindia. It is clear from the evidence of physical form, arts and customs that it was not merely the glossary but the race itself that spread to the Indian Archipelago, where it is now well represented by all those tribes that retain the pre-Hindu or Himalaic civilisation,—the ruder Sumatrans and Borneons and many of the eastern tribes [Ethn. II., c. ii. and iv]. See Appendix DOG.

#### Cat.

**misu** (*mi-su*). There is no other example of this vocable in the Sumatran and Peninsular group. Allied forms are found to the eastward in Borneo, the Philipines and Polynesia, *pusa*, *busi*. Rotuma alone has *pitsa*.

The term is Dravirian in the form *pusi* &c, Scythic, Caucasian, Semitic and Indian under the forms *pishi*, *bis* &c &c. But *mi-su* and *pi-tsa* appear to be HIMALAIC, the sibilant being a common Him. root for the Cat. Comp. Kumi *min-cho*, Joboka *me-sa*; (*seu*, *thu*, *chu* occur as varieties of the root in other combinations).

#### Cow.

**jawi**. Javan,—*jawi Kawi*, *jajawi Basa Krama*. This is probably the same qualitative that is applied to things of foreign origin. But it may possibly be cognate with the more common *sapi* which appears to be the Himalaic labial root with the sibilant prefix. Sunwar *bi*, Limbu *ya-pi*, Karen *ppi*.

#### Monkey

**mehlu**. Timor belo, Magindanau ubol, Malay brok.

HIMALAIC. Both *meh*, *be*, and *lu*, *lo*, *rok* are roots applied to the *monkey*. Naga *veh*, Singfu *we*, Silong *k-lak*, Kumi *hlait*. The same roots and combinations are used for other quadrupeds, *goat be*, *me*, *b-lang* (Drav. *va-la*), *pu-run*, *cat byi-la*, *cow balang*, *elephant p-lo*, *b-rang*, *horse b-roh*, *bo-ro'*. In Malay the liquid root occurs with the guttural prefix *kra'* (*k-ra'*), Bata gere' (*ge-re'*) Silong *k-lak*, Bodo *mo-khara* (*kha-ra*), Garo *ma-khre* (*ma-k-re goat* S. Tangphul.)

**Fowl, Bird.**

**mano, manok** (*ma-nok*). Sumatra-Pol. *com.*

ULTRAINDIAN, Siamese *nok*, nuk, Murmi *naga* [applied to the duck in Scythic and other vocabularies].

**Fish.**

**enas B. nas N.** (probably *en-as, n-as*). Niha, Pasir isa', Pampangan *asan*, Philipines *ista, suda &c*, New Guinea *sair, hisu &c*, Kayan *ma-sik*. The Pampangan *asan* preserves the original Malagaso-African form.

MALAGASY *hasandrano*, i. e. *hazan-drano, water-fish* (*drano water*) as in Semitic. The root is the most common in Africo-Semitic vocabularies,—*isi, os, doui, izo, esu, sue* Zimbian, *azu, azo, aze* Isoama gr., *isan* Padsade, *esen* Akurakura, *edsa* Yoruba gr., *usa* Amharic, *esa* Shangalla, *sod* Gara, *samak* Arabic, i. e., *sa-mak water-fish* (*ma' water, Gara mek*), [so in the post-positional Tumbuktu *hari-ham water-fish* (*hari water*), in Yala *ebe-yenye* (*yenyi water*), in Ekamontulufu *ny-alap* (*alap water*), in Mbofon *ny-aneb* (*aneb water*), &c]. The root is also Caucasian, *tschua b'-zheh*; Armenian *tzugne*; Scythic, *isse, yisya* Yenish., *ziz-f, zepf, tschep, Aino, zyenyj, zen* Permian [also *tscharyg &c, tsherik*, probably *tschor-yg, tscher-ik, shor* being *water* and *ik* an archaic Chinese, Tibeto-Asonesian and—with the liquid final—Scythic, root for *fish*; so *nimacha* Tungusian, i. e. *ni-macha, muja, muke, water* (*e-mak, mok* Chukchi—the Semito-African form—), *ni*, an archaic Scythic root for *fish*, preserved in the Yukahiri *annil* (*a-nil*) and Permian *nan*], *sagasun, dsaga-su &c* Mongolian, i. e. *saga-sun, usun water, saga* the Scythic sibilant root for *fish* with the guttural final as in Armenian, so *nago-sun duck* *nago* an archaic Asiatic root for *bird, fowl*; Tibetan, *izha' Thochu*,—as the sibilant root is not found in the other Tibetan vocabularies nor in the allied Gangeto-Ultraindian, *izha'*—a soft form of *ishak*—is probably an intrusive Mongolian term (from *dsag, sag*).\*

\* The composite Scythic forms must be of proto-Scythic descent, for the qualitative or possessive term follows the substantive, instead of preceding it as in Scythic. When this archaic Scytho-Semitic combination was first used, the root must have had a more generic meaning. It probably included *snakes*.

**Snake.**

**sawa.** Mantawe sabah, Tilanjang sauda, Jav. sawer, sawar, Tojo sawal, Buton sa, Bunerati sa', [? sarpa Kawi, Sanskrit].

This word is probably from the Kawi and Sanskrit sarpa. The ultimate root is also Chino-Ultra-Indian sa, shia, se, chua & Chinese, thaom, sum Mon, thofa Angami Naga. The Tilanjang sau-da appears to preserve the r of the Javan sawa-r in its da. The Tojo has also the dental (so sawr Jav., saut Mal. *reply*). The form sawah is current in Malay, applied to a variety of the boa, ular sawah, but as the same word means "net land," this may also be its meaning when used as descriptive of this boa.

## 7. NAMES OF TREES. FRUITS, ROOTS &amp;c.

**Tree.****awa ayu ayu.**

Awa is a variety of the common Indonesian labial word puang, pah, &c, TIBETO-ULTRINDIAN and CHINESE, which is current in Niha for *wood* with a similar form, ewo, whence iwo Mairasi (New Guinea). (Chin. bu', mo' &c, Scythic ew, mu, mc, op &c).

Ayu, which is also current in Savu and Gorontalo, and in the form aju in Wugi, is a contraction of the prevalent Sumatran-Polynesian kayu (whence also perhaps kai of Aru, New Guinea and Tarawa), itself a softening of a sibilant-dental form preserved in kaju, Bima, Solor, Ende, Tidori, kathu Viti, kajang Kawi, katu-oku Car Nicobar, kahuy Philipines. The original is the MALAGASY ka-kazu, hazu, haju. The same root is Indian kash, kath, gash, katte &c, Turkish agash, and Yeniseian oksa, kusoshtsche &c. The Simang kuing is Ultra-Indian, akoi Maram, kai Anam, and the Molucco-Tarawan kai may be derived from it and not from kayu. The sibilant (variable to the dental) root is common in Africa with and without prefixes. The vowel is generally slender but the Grebo group has zu, dsu, tu.

**Coconut.**

**woh-nu** (woh "fruit"). Ach. u, Gorontalo bo-ngo, Timor nua, noh, Sumatra-Pol. com. nio Bali, Sasak, Buton, Bima, Totong, Magindanau, Iloko, niu Kisa, Rotuma, Viti, Polynesian, nior Malay &c.

MALAGASY voa-nio (voa, *fruit*).

**Plantain** (103).

**gaul.** Bata galu, gol, galo, Bima kalo, Sumba kluu, Pampangan galean, Utanata kamo.

TIBETO-ULTRAINDIAN and INDIAN. ngala Bhotian, kala Bengali, Gurung, kela, kera &c, Kol, kal-*vi* Male, ker Hinduvi, kel-gaddi Singhalese, kalway Lau, kinei, klue, Anam. The same root is probably contained in the Bengali, Hindi and Kol kadali, kodal, kadli &c, Lepcha kar-dung, Anam kong-tin whence the Binua kan-tuk, Bawian kin-tang, Madura ki-dang, Javan gi-dang. The tin, dung tuk, tang, dang of these terms appears to be a separate root. Comp. tang, yooknab Car Nicobar, ton-dok Pampangan, Tagalla. [See Appendix].

**Rice.**

**yamong** (*yamong*). *Boiled Rice*, bung Mandhar. me Samba-wa, mei Maginadanau, minga Bunerati.

CHINO-ULTRAINDIAN, wong, vong Naga, pung Mon, bu Bonju, Kuki, ta-ming Burman, a-pin Abor-Miri, mi Garo, ping, phui, bui, fan, mi, bi, mei &c *Chinese*. The common Indonesian name for *Rice* bras is Himalaic, but applied to a different grain.

The other names of fruits &c are the common Sumatran and Indonesian ones jambu, a-limo, mangis, dorian, g-obi, tebu, *pen-aru*, a-liwu (nibong) tala (from kaladi). Odi *bambu*, tungkol *nipa*, bongi *pinang* are not Malay or Bata.

## 8. NAMES OF INANIMATE NATURAL OBJECTS.

**Earth.**

1. **lepul** B., (lepu-l) lopa, leopa lupa, labua, labuad Philippine, labu-*tu island*, Tojo, lapa Lifa, lepo Polynesian. *Country* libu Kahagan, lipu Gorontalo, Buol, lawo Solor.

If the root be le, li, lo, it is HIMALAIC. See 2.

2. **lansa**. N., (lan-sa) Simang *country* lang-ke, Sambawa *ib.* orang, Mille rurun.

HIMALAIC, Mikir lang-le, Bhotian *country* lung-*ba*, Play lang-koa, Khamti lang-nin, Naga *ali*, Burman *mre*, Mishmi *tari*, Manipurian *ma-lai*, a-lu, Manyak *mali*, *mli*. The sa of lan-sa is also Tibeto-Ultraindian.

**Stone.**

**batu**; Sumatra-Pol. *com.* MALAGASY vatu.

**Hill.**

**delok.** Bat. dolok, dolang, deleng. The vocable is rare, tulik turi Grub, turi, tuli Masid, tulit Aru, terio Onin, doro Sambawa, duru Bima, *tadula* Sambawa, *nadula* Sumba, dlai Silong. If, as is probable, de-, do- be the pref. def. and the root lok, lang, leng, it is Himalaic—rok Lepcha, dok-ang Milch., rong Lhopa, dak Bhotian &c and SCYTHIC, tak, tag, dag Turk. &c, lok Ostiak, &c.

**Water.**

**oee B., wai, wei N.** Komreng, Lampong wei, Lamp. wai, we. Sumatro-Pol. com. in various forms, wai being the most widely spread (Moluccan, Polynesian &c ue ui New Caledonia.) Both this vocable and the less prevalent ayer, ayira &c. (Malayu &c) and aing, eng, aying, haen &c (Madura, Borneo) appear to be contractions of the full form preserved, with some variations, in the Silong *a-waen*, Saparua *waelo*, Timor *wair*, Utanata *warari*, Lobo *walar*, Onin *stream* *wera-buan*. Mairasi *weari*, Australian *wadyang*, *purai*, *marye*, &c “water” or “river.”

DRAVIRO-AUSTRALIAN. Dravirian *vellam*, *yer*, *water*, *pa*, *varu*, *aru*, *eru*, *pole*, *punal river*. Scythic *wir-ta*, *wiro*, *bera*, *pol-ym mura*, *waim*, *weiom*, &c. Sanskrit *vari*, Pali *wari*.

**Stream.**

**luan.** Bata *ley*, Javan *lepen*, *lipen*, Bali *te-labah*, Ende *luvu*, Roti *leh*, Kissa *lapang*, Magindanau *lowa-saig*. Comp. *Water*, Tilanjang *lewo-lewo*, *lebu*, *libu*, *Rain* Lampong *labong*, Lifu (Loyalty I.) *lelapu*, Mare (Ib.) *ele*, Tuanlu (New Cal.) *ri*,? Toro (Sol. I.) *langi*, *Sea* Lamp. *lawok*, Ache *lawut*, Malay &c *laut*, Yengin (New Cal.) *haluc*, Polynes. *moana*, *Marsh* Malay &c *rawah*, *rabah* &c.

ULTRAINDIAN, Rakhoing *ri*, *re*, Chepang, Mikir *lang*, Tablung Naga *riang*. *River* *m-rik* Rakhoing, *p-rek* Kambojan, *lik* Khyen, (*leko* Meri, *i-lung* Philip.)

**Fire.**

1. **ahce** B.; com. Sumatran *api*: Pol. *afi*, Ende, Pol. *ahi*, Binua, Landak *ape*. Sumatra-Pol. com. in various forms.

MALAGASY, *afe*, *afu*, *afo*. Africa,—Tumali *ibe*, *ibi*, Kamamil mo. Koelle's voc. does not contain *fire*, but for *hot* he gives *afu*

Mandara, zafi Hausa, bie Gura, efi Param, efi Boritsu, and for *smoke* the same vocable in several languages, e. g. afi, efi Yoruba gr.

2. **awal** N. (comp. balal N. walal, bolal B.),? Murray I. wur.

ULTRAINDIAN, Garo wol, ver, Manipuri group wan, *tavan*, Singpho wan, Naga van. [See *Sun, Day*].

### Sun (Day).

**mata bolal** *sun*, **walal** *day* B., mata balal *sun* N. Rejang bilue, bilei, bilei-lueng *day*, Kagayan bilak *sun*, Aust. punal *sun*. Comp. *Sky* Niha banua, Madura, Sabimba, Sambawa wang, awan (*Cloud* in Malay &c), Australian wono; *Light* Kahayan balawa, Kayan mala, Pol. malana, *Day* Australian ben, benan, Tana marareu.

DRAVIRIAN *Light* belaku, velich-*am*, *Sun* polutu, *Sky* ban, *vanam*, bonu, vir &c. ULTRAINDIAN *Light* ban, wan, war, *Sky* bloei, pleng, wan, ban,, *Sun* wan, ban. *Fire* wan, van, wol (Garo), ver (Ib.)

### Moon.

**bawa** B., **bowa** N., bawa Niha, boi, pue, muea, mue, New Caledonian. These exceptional forms are probably contractions of the common bulan, bura, bara, &c, *moon*, *white*, like the Ternate *u-buan*, Tojo *na-buya*, Dore baya *white*, and the Ache bluan, Tagalo buan, Keh dulan huan, Rotuman hual, &c *moon*.

MALAGASY *volana*. The Ultraindo-Gangetic vocabulary has also *vula* &c but the final *-na*, *-n* of the full Malayu-Polynesian forms refers them to Malagasy. Africa,—Bola gr., puli, *pung-at*, Biofada wulam-pa, Eilhani fulhen, Tiwi wuele, &c. With the primary meaning *white* the vocable is common in Africa. [See *White*].

### Stars.

**bantun** N., **bintau** [? bintan] B. Sumatra-Pol. com. Radical forms are preserved not only in the common *bintang* &c but in the Niha petu, Silong bituek, Tilanjang pidua, Sangir witui, Polynesian fetu, petu (Niha), Tasmanian potenu &c, &c.

DRAVIRIAN and ULTRAINDIAN, Ka patua (Tilanj.), Naga pitinu (Tasman.), Male bindeke, Uraon binka, South Drav. vinmin &c, Kol *i-pil*. The root bin, vin, pil, van is Scytho-Dravirian, and is applied to *Fire, Light, Sun, Sky, Moon*. [See *Sun, Fire*].

**Night.**

**bungi B., bangi N.** *bungi*, *bongi Niha*, *bongin Bata*. Sumatra-Pol. com. The root is also *Black na-bonge Parigi*, *pangu*, *mangu* Polynesian, *manguin Kagayan*.

HIMALAIC, mon *Murmi*, (*pung Rotuma*, *bung Mille*, *pung Rotuma*, *bong Tarawa*, *po Polynesian*) *me*, *be Chinese* (*we moi*, *po*, *pi Ugrian*, *Sam.*), *black*, *u*, *o*, *wu* &c *Chin.* *mee Burm*, *a-ping Thampe*; *blue mon-po Tiberkad*.

## 9. WORDS OF ART.

**Ship**

**landong**, probably *dong* with the *la* pref. nasalised, before the *d*: *Boat ti-dong Kisa*, *longa Tagalo*.

GANGETIC and ultimately TIBETAN, *donga*, *dongo*, *dunga* &c &c. [See Ethn. II, Ch. v, Sec. II].

**Boat,**

**wongi.** *Bat. bungki*, *Mantawe a-bak*, *a-vauk*, *Sumatra-Pol.* com. *wanagi*, *bangka*, *bangkong Borneo*, *Balignini vangka*, *vanga Viti*, *ta-fanga Pol.* &c &c. The *Mantawe a-bak* is found in *Roti o-fakh*, *Bruner I. waga*, *Wugi pada-waka*, *Pol. vaka*, *va'a*. These forms and the *Redscar Bay wanagi* (*Maruwi wongi*) indicate the main course of the *Niha-Mantawe* maritime art to the eastward—*Timorian chain* (and *Celebes*)—*Moluccas*—*Papuanesia*—*Polynesia*—and the general vocabulary confirms the indication. A second current connected *Java*, *Borneo* and the *Philippines*, and a branch from the *Philippines* formed the main one in the northern *Moluccas*.

INDIAN. *paka-da Tamil*, *pla-vaka Sanskrit*.

**Gold.**

**ulawan**, a contraction of the com. Indonesian term, *bulawan Bisayan*, *bulawa Celebesian*, *vulanu ib.*, containing the *Malagaso-Asonesian* root for *white*, *moon* &c *vula*, *bulau* &c. The MALAGASY term *vula* has been extended from *white* and *silver* to *gold*, and the qualitives *mena red* and *fusi white* are added to distinguish the two precious metals *vula* or *vula-fatsi silver*, *vula-mena gold*.



## NOTES ON MALACCA.

THE territory of Malacca extends along the western coast of the Malayan Peninsula, from the Lingie river in north latitude  $2^{\circ} 30'$ , to the Cassang river in north latitude  $2^{\circ}$ . The coast line runs north-west and south-east. The settlement has never been properly surveyed, the only maps in the Government Offices being founded on old Dutch estimates, improved by partial surveys, made at different times. Using the best of these maps we find the territory to lie in an irregular parallelogram, the sea-coast forming the south, the river Cassang the east, the river Lingie the west, and a line from Mount Ophir to Sungie Londoo, on the Lingie river, the north boundary.\* The greatest length is 40 miles, while the breadth varies from 10 miles, at the west, to 28 at the east. The area has usually been calculated at 1,000 square miles, an extent in excess of the truth.

In the interior the country is arranged in a series of undulating hills and valleys, generally lying parallel to the sea-coast. There are no great ranges of hills, but a vast number of detached elevations are found irregularly situated over the surface, varying in height from 100 to 1,000 feet. The general formation of such of these hills as have been examined is granitic, covered in many instances with beds of "laterite," which form of "clay" is found in great abundance all over the country. The sea-coast may be divided into three portions which are of distinct type. The northern part from the Lingie river to Tanjong Kling, shews a bold wooded elevation reaching to the sea, behind which the undulating series of hill and valley immediately commences. The central, or from Tanjong Kling to the town of Malacca, is a sandy beach with ferruginous rocks appearing in points at several places, particularly near Tanjong Kling. While the third part is a low mud flat exposed for a great distance at low water, and with its inner extremity covered with mangrove jungle. Inland

\* The boundaries of Malacca are thus laid down by Mr Van Son, the Dutch Commissioner, in a letter addressed to Mr Cracroft, the English commissioner, when Malacca was transferred to the English, dated 8th April, 1825.

South—Along the Cassang river to Mount Ophir.—North—the Lingie river, to the mouth of the Mirbow river, and thence along Rumbow Mountain to Mount Ophir, "et de là le long des montagnes de Rumbowe jusque au dit Mount "Ophir."

from the two latter portions, an immense alluvial plain, with a few detached hills, extends for some miles; rising, in the channels of the Malacca and Duyong rivers, not more than 3 or 4 feet in a distance of 10 or 12 miles. Thus the plain in which the hot well of Ayer Pannas, Rheim, is situated, at a direct distance from the sea of 10 miles, is only about five feet above the sea level.

The country is abundantly watered by four navigable rivers, the Lingie, Malacca, Duyong and Cassang, with their numerous branches. Of these the Lingie is navigable for vessels of 200 tons as far as Simpang, a distance of 10 or 12 miles, while the Cassang, the Duyong and Malacca rivers can accommodate large boats for about the same distance, beyond which smaller boats or canoes are used. By the Malacca and Duyong rivers, all the tin produced in the settlement is brought down to the sea. In addition to these principal rivers, with their tributaries, there are innumerable others of lesser capacity draining the great plain directly to the sea, as may be seen by a reference to the map.

The soil of the low lands consists of a rich alluvial clay, varying in colour from light-brown to red. This clay is sometimes found to be tenacious, but in general it is of an open friable quality, admirably adapted for "cereals." Round the bases and on the sides of the hills, rich deposits are formed from the detrition of the granite and lateritic clays; these situations are found particularly suitable for spices and fruit trees. The whole territory is universally admitted to be capable of producing in perfection almost every article of intertropical cultivation; labour is cheap and plentiful and justice is administered under English law; yet, although now twenty eight years under English government, but little advance has been made in developing the resources of this magnificent Province, and it remains covered with the dense forests which sprung up after the destruction of the native government and which 350 years of European occupation has failed to recultivate.

The Portuguese held Malacca from 1511 to 1641, but their attention was solely directed to commerce. The settlement was made a Custom House "depôt" for the trade of the Archipelago: agriculture was neglected, and the ruling power, occupied in monopolizing trade, as a more profitable occupation, afforded

neither protection nor encouragement to agricultural pursuits. Subject to constant attacks from the Malays, and often on the verge of absolute ruin, the Portuguese were never able to divert any of their disposable resources from the protection of their Town and shipping to the exposed and apparently little valuable country districts, and in consequence the population was not able to spread far from the walls of the Fort. It is doubtful whether the Portuguese, or even the Dutch, till within the last 100 years, ever actually occupied more territory than a circle of two or three miles from the Town. The previous Malayan occupants of lands must have gradually retired before the presence of an inimical intruder, and there is reason to believe that the territory of Malacca proper, during the occupation of the Portuguese, was nearly depopulated.

The Dutch followed in the steps of their predecessors in turning their attention solely to commercial affairs. Under their rule the Port was strengthened, and although after some time, by the decay of the Achinese and Johore empires, they were relieved from fear of attack, they still confined their internal arrangements to exacting from the neighbouring chiefs the preëmption of their produce, without themselves encouraging production. The cultivation of rice, the staple food of all Southern Asiatics, was strictly prohibited in favour of Java; the natives, unable to raise food for their own consumption, were thereby precluded from attempting to gain a livelihood in agricultural pursuits, and, in consequence, except in the vicinity of Town, where fruit and vegetables were grown, the land was allowed to remain uncultivated. The inexhaustible productions of a Malayan jungle attracted the labour of a number of the poorer classes who were content to lead a life of hardship and privation in the search for gums, oils and valuable woods, the spontaneous growth of the forest. The lands of the Settlement were of no value, but as their fastnesses afforded cover for the robbers and marauders of their half savage neighbours, the Dutch Authorities were willing, saving the protection of Java rice, that they should be cleared and if possible inhabited by a more orderly population than their dreaded enemies the "Manicabows." To this end grants were made to the favourites of government of tracts varying in extent from one to one hundred square miles. The grants, except in some

of the lots near Town, contained conditions binding the grantees to cultivate and people the lands: but as these conditions were not enforced, the receivers, without rendering themselves liable to any penalty, generally contented themselves with exacting a proportion of the forest, and other scanty, produce; and the object of government was defeated.

In 1795 the English took possession of Malacca, but as their occupation was only provisional, and without any intention of permanency, no attention was paid to the internal economy of the place. The officer in command of the troops was invested with a nominal power to enable the proceedings of the Dutch Court of Justice to be perfected; but beyond this no controul was exercised over the country; and it afterwards appeared that the English authorities were not even aware of the fact that the whole of the territory of Malacca proper had been granted to private individuals, and that the scanty rural population was living under the exactions and judicial oppressions of the native servants of these land grantees. The only benefit which accompanied the English occupation was the removal of the restriction on planting rice crops; but as the attention and protection of the government authorities were not extended to agriculture little improvement followed, except in the immediate vicinity of town.

Under the seven years occupation from 1818 to 1825, no attempt was made to restore matters to the old footing, as it soon became understood that the place would not be long held by the Dutch; and they in consequence allowed every thing to remain in a state of neglect, second only to the indifference of the English.

In 1825 Malacca was given over to the English, and, as the transfer was now final, arrangements were at once made to conduct the government on improved principles. The station was incorporated with Pinang and one of the first subjects which occupied the attention of the new government was the disposal of forest lands and the encouragement of agriculture. It appeared evident that all prospect of commercial prosperity was destroyed by the establishment of Singapore; and it followed that if Malacca was to be a valuable acquisition, it must be made so by developing its internal resources, particularly in the matter of cultivating the soil.

In accordance with a fundamental rule, which vests the pro-

prietorship of the soil of all Asiatic states in the ruling power, the English government proceeded to take possession of all waste lands, in order to make such arrangements as should seem advisable to secure to the future occupier that first requisite to a prosperous agriculture—a good permanent title; but here, at the threshold, they were met with the claims of the Dutch grantees. It was of course to be expected on taking charge of the settlement that the cleared and cultivated lands should be claimed by private individuals, but that the forest and waste lands of the whole territory should be so claimed was as unexpected as it has proved embarrassing. Enquiry was at once made as to the nature and extent of the claims then made, and for the first time heard of by the English authorities, after a previous occupation of 23 years.

When called on to produce their title deeds a number of bills of sale were brought forward regularly attested as having been registered in the Dutch Court of Justice. The absence of original grants and intermediate transfers was accounted for by the practice of that Court which retained as records all previous “deeds,” and issued to the present possessor only the transfer in which his own name is used. On enquiring at the Court of Justice it appeared that many of the valuable records had been removed to Batavia, but some were discovered, and from these, and the transfers, the following information was obtained.—That the Dutch government, at various times, from the commencement of their rule down to the latest dates, had made grants of land to private individuals. Some of the grants were written in a law language and character said at that time (1828) to have been unintelligible; but others, of a later date, were translated. Two of these grants, entered in the minutes of Council, shewed the following tenures. “The Governor and Council, upon proper motives, and for the amelioration of this place, have granted and bestowed a certain forest garden, in some places planted, and in others abounding in woods, morasses and hills, which make it inaccessible to be measured on all sides, situated about 5 miles on the river bank to ———— and he may from henceforth claim the full possession of it, and may, with our knowledge, sell or mortgage it, and may use it with that freedom as if it were his own property. Provided that as quick as possible he shall build and cultivate the same and that it remain subject o

such government impositions and restrictions as the high authorities have fixed or may fix."

The transfer of this grant, registered in the Court of Justice in 1799, after reciting that a certain person is proved to the Court by the testimony of two other persons to be the lawful proprietors of a certain forest garden, goes on thus, "therefore the lawful possession of the garden by the appearant is confirmed and he is authorized to sell, barter or do whatsoever he pleases with it."

The other grant has a different tenure. "The Governor with a good design and for the good of the place, allows and permits to ——— a certain piece of Morass land of the Hon'ble Company, hitherto given to nobody, situated &c. to have and to hold, hereditarily to possess, and with our foreknowledge to sell, let, alienate and encumber and to do with, and handle the same at pleasure. Provided it remain subject to such duties as the Supreme Government have, shall or may set on freely granted lands and subject to annulment when there is an accident from the enemy or otherwise required for the public good, and subject to restoration without compensation when required by the Hon'ble Company".

The transfers in the Court of Justice appeared to be the same in all cases, without reference to the diversity of tenure and conditions. The translations of these documents made in 1828, are so loose and imperfect that no argument can be brought as to the meaning and legal bearing of the operative words.

On claims made out under these and similar documents Government was called on to decide. It appeared that the proprietors lived in Town, never visiting the lands, which they hired out yearly to Chinese farmers, and that the farmers having only a temporary interest, exerted their ingenuity to exact as much as possible during their year from the unfortunate rayats, without reference to future consequences. It was obvious that, putting aside all other considerations, Government could not permit such a state of affairs to continue under British rule, and measures were at once taken for finding the real position and right of all parties concerned in order to effect a pecuniary compromise. It appeared that 237,840 acres were claimed by 10 individuals; the highest claim was for 179,200 acres, and the lowest for 1,600 acres; that, of the whole amount claimed, only about 15,000 acres were in

cultivation ; that the population on these lands amounted to 14,323 ; and that, by their own shewing, the profits derived by the grantees from the whole quantity amounted only to Rs 18,439 yearly.

In the course of the enquiry further information was obtained as to the tenure. It appeared that the grants at first produced were exceptional, and that the greater proportion of the others were burthened with a proviso that the grantees must clear and cultivate the land ; that they must keep in repair all roads and bridges ; provide proper Police ; and keep clear, and free from obstructions, the banks and beds of the rivers ; that by a Regulation of Government, dated 14th December 1773, and renewed 29th of May 1819, the grantees were restricted from taking more than one tenth of the gross produce from the tenants ; that the tenants, so long as they pay this tenth, have an indefeasable right to the soil, which they may sell, transfer and devise &c, subject to this oneliability of tenth ; and that so long as they pay this tenth the grantees cannot dispossess them. On the other hand the grantees urged that, without questioning the absolute authority of Government to resume land in default of its having been cleared, they considered themselves as possessing, in equity, a full and inviolable right to the lands, inasmuch as they had been sold and handed over to various individuals for a series of years, without any mention having been made of such inherent reservation affecting the title by the Court of Justice ; which Court retained the original grants, and, if there had been any such reservation, ought to have noted it in the transfer.

It is perfectly clear that this tenure of land, however it may have been in accordance with the Dutch system of government, could not possibly have existed under the more particular and jealous regulations of lands in an English Settlement ; that it was never intended, by the Dutch Government, to alienate, in the full meaning of an English "grant in perpetuity," such extensive tracts of land. The truth is evident that the Dutch government, with a view to induce influential persons to interest themselves in cultivating and peopling the forest lands, made over to them the right which they possessed of levying a tenth of the produce, in the hope that the attention which they were themselves unable to direct to the subject, might,

under a private interest, be found effectual in peopling the territory. It is also clear that as the grantees would be put to no expence in effecting this object the Dutch Government could have resumed the right of collecting the tenths without any compensation, as is really stipulated in some of the grants, if they should require the lands, in the event of any future arrangements making a change desirable.

Taking all the circumstances of the case into consideration, Government agreed to purchase the rights of all the grantees for a yearly annuity, equal to the amount of rent derived by each from his land. At that time a deed was entered into between the Government and each of the parties, of which the following is an abstract :

*Abstract of deed of transfer of lands to East  
India Company.*

Recites Titles of present holder, A. B., many of the original  
Preamble. deeds being lost, and all the boundaries on the inland  
side, being unmeasured by reason of the deep jungle,  
are unstated.

Whereas A. B. stands possessed of the right of levying from the tenants on the said lands one-tenth of the produce on the tenure and condition of his grant, and is now willing to transfer all his right to the East India Company.—The Governor in Council for the East India Company is willing to receive said rights.

The following agreement is therefore entered into :

A. B. for self and heirs relinquishes and transfers to the East India Company, all the rights, title and advantages resulting to him from the possession of deeds &c aforesaid, now delivered over to East India Company with transfer indorsed.

The East India Company acknowledge to have received deeds, title, privileges, advantage and benefit aforesaid and in consideration, covenant and agree to pay to the said A. B. and his heirs for ever, so long as the settlement of Malacca remains under the British flag, the sum of Rs ——— and agrees that payment by East India Company to A. B. and right to levy one-tenth from lands shall commence 1st November, 1828, to East India Com-



pany and for ever cease on part of A. B. (By supplementary article altered to 1st July, 1828. The last para is given in full as important). In case the "settlement and territories of Malacca" should be hereafter transferred to any other power, Government "do bind themselves to re-transfer to the present holders, or their heirs, all deeds, privileges, rights, benefits and instruments now delivered, and will put them in possession of all rights and advantages derived therefrom." Some of the then holders were merely tenants for life, so of course such an arrangement as the above would not bind their successors, but with one or two exceptions they all transferred their rights to Government, which thus became possessed of all the lands of the settlement.

The arrangement made remains in force till the present day. Unfortunately the result has been disastrous to the welfare of the settlement, as well as unprofitable, in a pecuniary point of view, to Government.

Having taken over the lands, a suitable establishment was authorized, under the management of an officer styled the "Superintendent of Lands," who commenced at once to make arrangements for the collection of the revenue, as well as for the settlement of new lands, and the government of the country districts. A Regulation for Lands was passed in Council on the 25th of June 1828, of which the following is an abstract:

*Land Regulation.*

I. Preamble.

II. Right of government declared to one-tenth of the gross produce of all lands and to sole and absolute property over all waste and forest lands.

V. Government right on cleared lands not to interfere with cultivator's rights.

VI. Cultivator's right declared to consist of full and free enjoyment of the land, transfer by sale, gift or bequest, subject only to pay one tenth of gross produce to government.

VII. Limits of all lands, cleared and cultivated, to be determined by Survey as soon as possible and title deeds given to each cultivator.

VIII. Government reserves the sole and absolute right over

all waste and forest lands not cleared and occupied within 20 years past.

IX. All lands remaining unproductive for 5 years to revert to government.

X. Cultivators to be exempt from forced labour.

XI. Government may take sufficient land to make roads on payment of loss of crops.

XIII. Payment of one-tenth not to exempt from future taxes, excise farms, customs or transit duties, assessment, cleaning, paving and keeping the Town &c.

In carrying on the government of the country districts the Dutch availed themselves of the Malay village system. Every community of 44 families constitutes a village, which is entitled to have a mosque and the regular officers, Imaum, Khatib, Bilal and Punghulu. All these held their lands free, and formed a tribunal before which minor matters in dispute were adjudicated. The two first named are mahomedan priests, the third is the "Muezzin" while the last is the chief secular officer. Under a Christian government the chief, and in temporal matters sole, authority was lodged in the Punghulu, and in course of time, by the neglect of supervision from Malacca, these officers became invested with full power to hear and decide petty cases, and to collect the revenue of the district. When the lands were granted away to private individuals each was authorized to appoint his own Punghulus, subject to the confirmation of government. As the system has exercised, and does till this day exercise, a very great influence, no apology is necessary for entering the following abstract of a Regulation about to have been passed by the Dutch authorities before the transfer in 1825. The regulation will give a better idea of the powers and duties of the Punghulus than a mere description. After the extension of the Court of Judicature to Malacca the judicial powers of the Punghulus ceased, and they were then sworn in as Peace officers under the Court, which gives them the powers of English Constables; but, from the absence any officer of government to check and controul them, after the reduction of establishment in 1830, they have retained and exercise in a great measure all the powers formerly given, with a great many of a still more objectionable nature, when, as in this instance, unchecked by the supervision of European officers.

*Abstract of Regulation for Punghulus.*

1. Punghulus to be appointed by owners of lands but subject to Governor's sanction: when the appointment is sanctioned every one in his district must obey his (Punghulu's) orders; if the Punghulus oppress the people, an appeal lies to Malacca.

2. Punghulus must follow Police regulations and protect their people.

3. Punghulus bound to obey the orders of their Master (owners of the land) but can appeal to Malacca.

4. All complaints in the district must be made to Punghulus.

5. Punghulus to appoint Mata Matas to assist, and may have stocks to confine refractory prisoners.

6. Punghulus may arrest suspicious persons at night.

7. Punghulus to arrest all persons without passes, and persons committing crimes of degree beyond their power to adjudicate, and send them to Malacca.

8. Any stranger wishing to sleep in a tenant's house must first report to Punghulu.

9. Punghulu to arrest any person hiding himself in another person's land, or any suspicious person.

10. To arrest and send to Malacca any person smuggling or evading Government dues.

11. To see that the Tenants pay their tenth.

12. If Punghulu hears of any offence he must enquire into it and bring offenders to justice.

13. Punghulu not to keep any one in confinement more than 24 hours.

14. Punghulu must obey Police orders to seize persons; if he cannot make the arrest with his Mata Matas, he can call on the tenants to assist.

15. Landholders and Punghulus of estates adjoining each other mutually to assist in executing Police orders.

16. If any person be found dead Punghulu is to go to the spot with 2 Witnesses and make notes as to wounds &c.

17. Also is bound to secure any one suspected of the crime.

18. When persons are seized Punghulu must write down depositions of witnesses.

19. In case of fire, robbery &c, Punghulu must visit the spot, and write down an account of the transaction for the Fiscal.

20. Punghulu bound to obey all orders from the Fiscal, or Captain of his tribe.

21. In settling petty cases Punghulu ought to chose 4 or 5 elders to assist.

22. Power to punish to the extent of 12 strokes of the rattan or 3 Rupees fine.

23. Punghulus not to allow gambling, except on holidays, then a cock pit may be made, but in the presence of the Mata Mata.

24. Punghulus and elders to settle all cases of marriage and religious usages.

25. Fees on every marriage 2 Rs, to be sent to Governor, for the poor.

26. Punghulu can permit a marriage against the wishes of the parents.

27. Any person seducing a virgin and leaving her shall be flogged with 25 lashes and fined.

28. Any one running away with a virgin shall be sent to the Fiscal.

29. Punghulu with 4 or 5 elders may settle all disputes about money up to 100 Rs, with right of appeal to Fiscal within 4 days, cases above 100 Rs to be heard in Court of Justice.

30. On complaint made Punghulu to fix a day for hearing.

31. Fees on hearing each case  $\frac{1}{2}$  a Rupee, register of fees to be kept.

32. If creditor does not appear on the day fixed for hearing, case to be dismissed, if debtor does not appear judgment to go by default.

33. Punghulu to enquire into all affairs without favour even to his own family.

34. In dividing inheritances Mahomedan law to be followed by the Punghulu.

35. Punghulu to take into custody all property in dispute till settled.

36. Punghulu to keep all roads in order and call on Tenants to repair them.

37. Punghulu to keep a list of all persons in his district, age, trade, time of departure &c.

38. Punghulu to keep a list of all births, deaths and marriages.

32. Copies of above lists to be brought to Malacca every first day of January.

40. Punghulu not to allow any stranger to settle on lands in his district, without a written testimony of character.

41. To prevent Cattle stealing Punghulu to keep a list of every person's Cattle, and if any sold he shall give certificate.

42. If no Punghulu on an Estate the land-owner to be held answerable for the execution the orders herein above described.

When we consider that these Punghulus are chosen by mere chance, from among needy and illiterate villagers, and are allowed to exercise these extensive powers without the slightest attempt at controul, we can be at little loss to account for one reason of the failure of the land system at Malacca.

During the first year of the experiment the lands were allowed to remain partly in the hands of the Chinese renters, and a considerable portion of the expected revenue was collected, viz. :

	Co.'s Rs 15,400
Against this must be debited the annuities.....	16,270
Salaries of Clerks, &c.....	4,560
Contingent charges.....	3,450
Add $\frac{1}{2}$ the Superintendent's salary, as he had other duties .....	7,800
	32,080

leaving a loss to Government for the 1st year of Rs 16,680

From that time the loss has been constant and increasing. The Government payment has remained steady, but the receipts have become less every year. The general break up of the Government and the reduction of the establishments which took place in 1830, had a bad effect on the settlement of the lands. There are only two officers to perform all the executive and judicial duties of the station. Both of these officers are necessarily confined to their offices in the town, and in consequence the country districts are left entirely in the hands of the Punghulus.

The result of the arrangement with the land owners has proved so unsatisfactory, that, in ignorance of many of the causes which have affected the question in practice, the foresight and judgment of its originator have been called in question ; but it will require little argument to relieve his memory from the charge of impolicy, in a measure which rescued the settlement, in its most valuable interests, from the hands of the grantees under whose management nothing but the most fatal consequences could have ensued. The present system has been a losing one to Government, but as there has been no legalised machinery for oppression, cultivation has greatly extended. It is calculated that the breadth of cultivation estimated in 1828 at 15,000 acres, now reaches to 70,000 acres ; though the revenue formerly derived from the first named extent was three times as great as that now received from the whole 70,000 acres. Mr Fullarton, a member of the Madras Civil Service, and generally considered one of the ablest administrative officers employed in the Straits, was head of the Government which effected the arrangement. In order to enable us to form a fair opinion, we must view the question in all its bearings as brought before him at the time. He appears in the first instance, to have been strongly impressed with the idea that it was absolutely necessary from motives of humanity alone, independantly of political considerations, to relieve the Malayan rayats from the grinding oppression of the Chinese farmers, as well as the hardly less cruel impositions of the grantees, in exacting a pretended right to command the labour of the tenants.

It appeared to him that the so called proprietors, the descendants and representatives of the original grantees, had certain rights, which had, in a measure, been recognized by the Dutch Court of Justice, and which rights, he well knew, would be recognized by his own superiors, in accordance with one of the first principles of the Indian Government,—respect for private property. It was not till a subsequent date that the real rights of the grantees were found to extend only to the privilege of levying one tenth of the produce. In a “ Minute” recorded in the Proceedings of Government on the 26th November, 1828, Mr Fullarton says, in reviewing the question of the lands :

“ The whole of the lands appeared to have been assigned over

“ to certain of the inhabitants nearly 100 years ago : on first  
 “ enquiry and examination of the deeds held by the present pro-  
 “ prietors, as they were called, descendants of the first grantees,  
 “ the government were led to view them as absolute proprietors  
 “ and owners of the soil, at full liberty to rent and derive the  
 “ utmost advantage from it. On a further enquiry, however, and  
 “ an examination of the Dutch Records it was found that only the  
 “ government rights of levying from the resident inhabitants one  
 “ tenth of the produce had been granted to them.” This last piece  
 of information, strange to say, arrived too late to be made use of,  
 as the arrangement had been already carried too far to permit any  
 alteration.

From the information laid before the Governor he was led to believe that the capabilities of the soil were so great, that the territory only required to be brought under fair government, and to be relieved from the pernicious influence of the land grantees, to enable it to produce such a revenue as would ten times repay the annuities. There were only then about 15,000 acres in cultivation, the profits derivable from which to the grantees, together with the whole forest produce of the settlement, amounted to about 18,000 Rs yearly ; that, in Malacca, there were about 320,000 acres of land available for rice cultivation ; supposing only one half of this to be cultivated, or 160,000 acres, the produce would be, at 600 gantangs per acre, 120,000 coyans, at \$40 = \$4,800,000, on which the government tenth would have been \$480,000—a sum nearly sufficient to defray the whole charges of the three Settlements, from the single item of rice, exclusive of other produce. This was the prospect for futurity under a management calculated to attract population &c ; while as to present prospects the following calculation was made. The quantity of land in rice cultivation in 1827 was :

In Malacca.....	Acres 4,397 $\frac{1}{2}$
In Nanning.....	1,255 $\frac{1}{2}$

Total—Acres 5,653 $\frac{1}{2}$

In each year 8 gantangs of seed at 75 fold increase=600 gantangs per acre or total :—

For Malacca . . . . .	Gantangs	2,638,200
For Nanning . . . . .	do.	753,000
		3,391,200

or 800 gantangs to one coyan.

4,240 coyans at \$40 . . . . . \$ 169,600

In addition to this the trade returns shewed a  
yearly exportation of local produce of . . . . . 106,325

\$ 275,925

10 per cent for Government . . . . . \$ 27,592  
or in **Rs** 61,806—while the payment to the grantees was only to be 16,270, leaving a profit of **Rs** 45,536 to Government, exclusive of the tenth on the other agricultural produce consumed in the place.

It also appeared that Government would become possessed of all the waste lands; and would be able to let them out, or dispose of them in any manner they pleased, and from this source alone, in such an extensive and fertile province, very large returns were looked for. It was never contemplated that there would have been any difficulty in realizing a revenue much larger than the sum of the annuities to be paid, and therefore, for such a trifling sum, no hesitation was felt in concluding the arrangement.

We have now to enquire into the causes of such a remarkable failure and there is little difficulty in pointing out two circumstances sufficient to account for the result: the first of these is the fact that, after the reduction of establishment in 1830, the land Department was left entirely without supervision, and, secondly, the last clause of the "Indenture", transferring the rights of the grantees to government, contains a stipulation to the effect that, in case the settlement of Malacca should hereafter be given up to any other power, the grantees were to be restored to their original position with respect to the lands. These two causes acting in unison have prevented that increase in population and in cultivation, which was so confidently expected. Malacca, unlike the other stations, is not in the least degree English in feeling—the



English Government, except in the case of a few officers known for their consideration towards the natives, does not exercise much influence in the place. The remnants of the Dutch inhabitants have been enabled to maintain a position toward the natives more in accordance with their previous, than their present, condition; from the fact that there never have been, from the first, any English settlers in the place to occupy that position, which gives such weight to Government at the other stations. The descendants of the Dutch have ever looked fondly to a return to their own government, and to this end they have endeavoured as much as possible to retain old institutions. In the matter of these lands they have kept up the idea of a restoration to themselves as not only a possible but a probable event; and, in consequence, they have tried to preserve, and, in the absence of English Colonists and of English Officers of Government, they have succeeded in preserving, a great portion of their influence over the lands. By representing the Company as their tenants and assuming the airs and rights of proprietors, they have been able to oppose successfully any attempts for improvement which a temporary exertion on the part of the local government has endeavoured to introduce. From the proviso as to restoration, Government is precluded from giving a permanent title to purchasers. Without such a title it is clear that Europeans cannot be expected to invest their capital; and without the example to be set by Europeans, it is almost hopeless to expect that the natives of Malacca will ever emerge from the state of apathy and indolence into which they have fallen. These reasons will account, in a great measure, for the absence of any great improvement in the revenue: but how shall the fact be accounted for, that, from the first year, Government has never been able to collect the amount of the sum paid as annuities; though it is well known that the breadth of cultivation has increased, and that the tenth, if collected, would far exceed the amount paid as annuities.

The simple results of this operation have been most unfortunate in their effects on Malacca. The character which the settlement must, in consequence, bear with the Supreme Government is of course affected. The Government can have no respect or care

for a Province, of 1000 square miles, which cannot pay a gross land revenue of 17,000 Rs ; and which has in fact not paid more than 6,000 Rs for some years past. Without such an explanation as cannot well be put into a "Government Report" it certainly would appear to be a difficult matter to account satisfactorily for the fact that the land Revenue on 640,000 acres, only reaches 4,951 Rs a year, particularly as that revenue ought to represent one-tenth of the value of the gross produce of all the lands in the settlement, arable, mountain, and forest. It is not easy to account for the reasons for allowing such a stipulation, as that noted above, to be entered in the Indenture ; it was most likely permitted in ignorance of the effect, and it will be remembered that to Mr Fullarton, a Madras Civilian, accustomed to Indian tenure, and quite unacquainted with the practice of the English law in such matters, it most likely would not have appeared to be a matter of any consequence. At the present day such a mischance could not occur, as, in the event of such claims being brought forward, the parties would be at once referred to the Court of Judicature, where each must make out his title, and where he would not have such a lenient tribunal as the Governor and Council of 1828. It would require a clear case to convince an English lawyer that any government had transferred the fee simple of a whole Province, without conditions or consideration, to a few private individuals, who could not strengthen their claims either by original grants or by the possession of what they sought to enjoy. Unfortunately Mr Fullarton was then engaged in his difference with the Court of Judicature ; and did not feel sufficient confidence to allow the question to be brought before that tribunal, so the proceedings were hurried to a conclusion. This fact is recorded in one of the Governor's minutes in Council. The grants are all informal, the lands are not measured, nor are any boundaries defined ; while some are clogged with provisions, in the nature of "conditions precedent," none of which have been fulfilled, and others are expressly subject to resumption without compensation.

It was arranged, and provided for in the Land Regulation, that each tenant should have his lands surveyed, and should be provided with a regular title deed. A surveyor was appointed, but, before he had been many months employed, his services were

dispensed with in the general reduction, and, in consequence, till this day, except in the immediate vicinity of town, the lands are not measured, nor do the tenants hold any documents to prove their rights.

Originally the government tenth was collected in kind, by the aid of the establishment supplied, but the system was found to be so cumbrous in practice, and the collection, storing and selling of the agricultural produce, after passing through so many hands, left such a very small net result, that it was determined to commute the tenth into an average money payment. In this matter the Government met with every obstruction. In the absence of Government influence the most absurd statements were credited: it was asserted by those inimical to the arrangement and believed by the tenants, that if they signed the commutation papers, they rendered themselves liable to serve in the Ceylon Rifle Regiment, a punishment not less to a Malay than transportation for life. It was afterwards asserted that the persons representing themselves as assisting in the Government duty were at the same time using all their influence to poison the minds of the natives by the most vile insinuations. After sixteen years 7,618 deeds have been signed, representing 14,886 acres, or not one-fifth of the cultivation. Every effort was used to induce the occupants of lands to come in and commute, but without avail, and at last in the confusion and cross purposes to which matters had been brought, the tardy and obstinate were handed over to the clutches of Chinese farmers. The temporary convenience of this system was so manifest that the whole settlement had a narrow escape from being involved in a danger, the relief from which formed one of Mr Fullarton's chief inducements for purchasing the rights of the grantees.

The result of the commutation system has been as unfortunate as the payment in kind. The rate was fixed at half a rupee per acre, but even this rate has not been paid, and the arrears are annually increasing. Those who have commuted find themselves subject to the annoyance of being asked for payment at various times when "the office" is energetic; while their more fortunate neighbours who have not "signed," are able to make their own arrangements, at their own convenience, with the Punghulus,

who occasionally render an account to the treasury, of the little amounts which "their great zeal for the Company's service has enabled them to force from the resisting and ungrateful rayats " at the risk of personal enmity and unpopularity."

It was directed that all those who occupied waste lands, subsequent to the transfer to Government, should be on a different footing, as the lands, not having been cleared, were considered not to belong to the grantees; and therefore, no person having rights, Government could make any arrangement which might be found advantageous, but by the discharge of the land surveyor, and from the reasons before hinted at, this useful purpose was prevented, greatly to the delight of the land grantees, and there is now no distinction between "previous tenants" with rights and "subsequent tenants" without rights. The inconvenience of this neglect was felt in 1840, when instructions arrived that the "subsequent tenants" should be reduced to certain terms, as follows:— Any person requiring lands was to apply at the Land Office, stating quantity required and situation; on this a permit to occupy was to issue, to be changed hereafter, when the surveyor had measured the ground, for a lease for 20 years, renewable for 30 more to be granted in the following terms :

For the first 2 years.....	free
„ 3 do.....	4 annas
„ 5 do.....	8 „
„ 10 do.....	1 0 0 per acre rent.

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A surveyor was appointed but no one came in for leases. From the reasons before stated the tenants found themselves very comfortable, without any papers, and the example of the inconvenience experienced by the commutators was too fresh in their minds to permit them to run the risk of a similar fate. Several thousand blank forms of leases were provided; but, up to the end of August, 1841, only 6 were executed.

The commutation deeds merely recite that A. being in possession of certain lands agrees to pay, and the East India Company agrees to receive, instead of one-tenth of the gross produce, a regular yearly payment, generally one half of a rupee per acre.

These deeds, which give no title, are regularly used as titles; being sold and transferred in the same manner as grants or leases; and, in default of other documents, are received in the Courts of Justice as presumptive proof of proprietorship.

In an action of ejectment tried by the Court in 1829, the following points were decided, and have formed the rules in subsequent cases:—"It was proved that, in the territory of Malacca, the owners of the soil, and the cultivators of it, are entirely distinct persons, except in and in the immediate vicinity of town; that the owners of the soil cannot eject the cultivator so long as he continues to pay him a certain portion of the produce, generally one-tenth; that the owner of the soil may sell, or otherwise dispose of his interest, without prejudice to the cultivator, and the cultivator vice versa; that, in case the cultivator allows the land to lie waste, the owner of the soil may eject him by due process of law; that the fact of lands lying uncultivated for certain periods is evidence of waste; that the periods are:

" For paddy lands.....	3 years
"     Cocoanut and other fruit trees.	3 do.
"     Gambier .....	1 do.
"     Pepper.....	1 do."

In the year 1847 a hope was entertained that some improvement would soon be brought about. In that year a number of European gentlemen applied for lands to cultivate sugar-cane. It was expected that the attention of the Supreme Government would be called to the unsatisfactory state of the land tenures at Malacca, in the discussions which must follow on the application of these gentlemen, as they of course asked for other terms than the payment of one-tenth of their gross produce; and it was also hoped that the example and the encouragement afforded by the presence and large expenditure of the sugar planters would have had a salutary effect. Both expectations were however disappointed; the monetary crisis of 1847-48 put a stop to the sugar speculation, and the land question has remained as before. Frequent "reports" have been made to Government, but other matters of more importance have interfered to prevent attention. One officer suggested that the rights of the grantees should be bought

out for a capital sum, that this sum calculated at 20 years purchase would amount to—the yearly sum of 17,350 Rs at 20 years purchase=347,000 Rs. Government could borrow this sum in their 4 per cent loan, thus saving 1 per cent. The advantages to be expected are the release of the territory from the dead weight of the grantees, and the ability to Government to give such titles as would induce capitalists to settle. It is not to be expected that any European would invest capital in a soil over which persons of the description of these grantees exercise any influence, but under the proposed arrangement they could purchase the lands in perpetuity, and thus be independent of accidents. The advantages to Government are be evident. At the selling price of 5 Rs or 10 shillings per acre, as at Pinang and Singapore, it would only require the sale of 69,400 acres to clear off the purchase money of the whole, thus leaving upwards of 500,000 acres clear to Government, but by the terms of the grants the grantees probably can only claim a right to all such lands as were cultivated at the time of cession: unless indeed it might be construed on the re-cession that they would be entitled to all then cleared. This plan was not adopted, but lately Government offered to make the annuities perpetual if the grantees would give up their right to reclaim, in case the settlement is taken by any other power. The offer was, at first, readily agreed to by the natives, and those who held the annuities as any other mercantile investment; but it was rejected at once by the Dutch settlers, who fear to lose the importance which their claims give them in the eyes of the lower classes; and who also, finding the welfare of the settlement dependant on them, appear to be determined to retain their hold till they have exacted good ransom. One individual when asked for how much he would dispose of his claim, promptly said for 99 years purchase, and this evidently as if he was doing a liberal act, as if, indeed, he did not wish to be hard on the Company. The lands if given up to-morrow, would be to them of very little value, and the fulfilment of the conditions of tenure to keep up roads, police, &c, would far exceed any probable receipts; while even supposing the government put on no land tax, a few years of their style of management would effectually reduce the breadth of cultivation and the

number of inhabitants. It is much to be feared that nothing short of an Act of the Legislative Council will finally settle this question; and that is a step the Indian Government will hesitate before adopting. It is perfectly clear that the land grantees have a hold on Government, and that they are prepared to use it. In order to give a good idea of the real value of the interest which they had in the soil, it is only necessary to note the selling price of the several lots at the last transfers. 382 square miles were sold at various periods for the aggregate sum of 43,860 ~~Rs~~, or equal to 115 ~~Rs~~ per square mile. One individual purchased 225 square miles for 3,880 ~~Rs~~, and is now in receipt of the yearly annuity of 4,260 ~~Rs~~ for the same quantity, while another as late as 1817 for part and 1825 for the rest, purchased 10 square miles for 1,660 ~~Rs~~, and has received 420 ~~Rs~~ yearly as an annuity. It is not likely that in the year the English received over final possession of Malacca land could be bought in perpetuity for 160 ~~Rs~~ a square mile: and if the local authorities had been aware at the time of these and similar facts, we may be assured they would not so readily have made the arrangement they did.

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## GAMBLING AND OPIUM SMOKING IN THE STRAITS OF MALACCA.

From a very early period of the governing intercourse of Europeans with the inhabitants of these countries, the vices of gaming and cock-fighting have been made subject of pecuniary gain to the ruling power.

Without entering into any enquiry as to the origin of the belief that these vices were innocuous, and therefore fit subjects for the encouragement which necessarily accompanies a government sanction, it may suffice to say that the Dutch always farmed the right of keeping gaming tables, an example which was followed by the English at Bencoolen, and afterwards at Pinang. The question then did not appear to be involved in any doubt as to the immorality which might attend promiscuous gaming, and indeed was viewed simply as a matter of revenue. It was not till the beginning of the present century that the European inhabitants of Pinang felt compelled by the growing evils attending the permission of promiscuous gaming, to bring the subject to the notice of Government. The question was then fully discussed in all its bearings. It was asserted on the part of the public that the vice of gaming was attended with the most demoralizing effects on the entire population, that however much it might be tolerated and possibly made a subject of revenue by the semi-barbarous native states, no argument for its extension to a British Settlement could be drawn from such facts, and that, as the Settlement of Pinang was of British growth, no necessity existed for permitting any native rule or observance which might be opposed to the most enlightened principles of Government. The supposed necessity of the case was absolutely denied, and it was asserted that, with a proper execution of the duties of police, prevention sufficient for the purpose of public morality could be effected.

To this it was replied that from long experience it had been proved that gaming among the Chinese was quite ineradicable, and that any attempt to put it down would only result in corrupting the subordinate police officers, by giving them a power which would be improperly applied. It was urged that a great proportion of the trade and indeed the general prosperity of the settlement depended on visitors who yearly arrived at the island and resided



there, for the purposes of traffic, during the monsoon: and, gaming being a necessary of life, any attempt for its suppression would have the effect of deterring these persons from coming to the island in future. It was admitted that gaming was a demoralizing vice, and that a remedy was desirable, but from all experience this remedy could not be provided by attempts at positive suppression but rather that the efforts of government ought to be directed to discourage its increase by surrounding the indulgence with all possible fiscal difficulties; and by the enforcement of such rules and regulations as might, by experience, be found suitable for confining the practice within narrow and known limits.

The arrival of the Recorder in 1808 brought matters to a crisis. It was obviously impossible for an English Judge, administering English law, to permit any appearance of encouraging gaming against all the maxims of that law, and Sir Edmond Stanley did not hesitate to make his opinion public. The vicious consequences of gaming had become a crying evil, the extent of which may be inferred from the fact that in 1807, with a population of 14,000 and an aggregate trade of £1,000,000 sterling, the amount paid for the gaming farm privilege was 30,700 dollars, and adding for the farmer's profits, say only 10,000 dollars, we have thus 40,000 dollars as a percentage of the sums lost and won in one year at Pinang.

Assisted and emboldened by the opinion and support of the Recorder, the Grand Jury, in their Sessions of 20th September 1808, preferred a bill of indictment against the gaming farmers, for a common nuisance, and thus at once brought the matter to a hearing. Under ordinary circumstances the indictment must have gone to trial, but, though in name against the farmers, it was in reality against the Governor and Council who were merely represented by the farmer, and the Governor and Councillors being judges of the Court, they overruled the Recorder and refused to allow the bill to be brought forward. The Recorder, in his charge to the Grand Jury, had attributed the melancholy catalogue of crimes in the calendar to the "very depraved state of the morals of the lower classes of the people of the island." The Jurors considered it a part of their duty "to investigate the causes of the deplorable and increasing evil" and presented that they arose from gaming being openly permitted. At the following sessions,

held in April 1809, the Jurors repeated their Presentment, and again broadly stated their deliberate conviction, "that no amendment can be expected in the morals of the lower orders in this island whilst these evils\* are suffered to exist, to which are to be attributed the numerous and atrocious crimes which are daily committed."

The constitution of society at that time did not permit the exercise of great influence in such a subject by the inhabitants, all of whom were resident on sufferance, and could be deported at the pleasure of Government. In the heat of argument it was even hinted that the European inhabitants had no right to interfere in such a case, as they were not concerned in the gaming tax. The Government refused to alter their policy and it remained therefore for a higher authority to interfere. The following extract from a letter of the Court of Directors, dated 4th May 1810, will explain fully the enlightened and liberal views of that body. As the extract contains its own introduction no explanation is required :

*Extract from general letter from Court of Directors  
to the Governor and Council at Pinang,  
dated London, 4th May, 1810.*

"18.—Our attention has been particularly called to two Presentments of the Grand Juries at your Presidency, with respect to the opium and gaming farms, which we find recorded on your proceedings of the 20th September and 13th October, 1808, but which, to our astonishment, have never been noticed in any of your advices, an omission which we trust we shall not have again to mention upon any occasion of the like nature.

"19.—In our instructions to your Government of the 18th April, 1805, we observed that the revenues arising from the farms of opium and gaming houses, appeared to give encouragement to the two most dangerous vices in society; and expressed a desire that on a political as well as a moral view of these practices, they should if possible be suppressed.

"20.—The Presentments of the Grand Juries above adverted to have very much strengthened our opinion upon the subject; and as the Jurors were composed of the most respectable resi-

\* Gaming and opium smoking;—the latter not included in the Presentment of the previous Grand Jury.

dents at your settlement, whose local knowledge and experience it is impossible to dispute, however they may injure us with regard to the mere revenue arising from the licenses in question, we feel it a duty incumbent upon us to attend to the circumstances set forth in the Presentments, and to endeavour by every means in our power to remedy the evils complained of.

“21.—We cannot observe in any of the minutes recorded by the members of your Government, with regard to the expediency of licensing the gaming houses, any cause for continuing them except for the purpose of deriving a revenue; unless we admit the argument that gaming would be practised privately, if not publicly allowed; but this may be said of every evil practice to which human nature is prone. The semblance of encouragement to this vice, however, on our part, must be extremely detrimental to the morals of the lower orders of society, and must, as the Presentments observe, be a principal cause of the lamentable state of that class on your island. We therefore direct that on the expiration of the present licenses for public gambling houses, you will endeavour to suppress this immoral practice by every means in your power, not only by discontinuing the licenses in future, but by establishing such salutary regulations of your Government combined with the jurisdiction of the Recorder's Court as may effectually remove this vice from your Presidency.”

The principle of absolute suppression was now to be enforced, as preferable to any attempt to discourage by partial restrictions, but, in order to give a fair opportunity of proving the advantage of the new plan, it is obvious that a primary requisite was a machinery for the duties of prevention. It is difficult now to arrive at any just idea of the efficiency of the police (the only machinery applicable) of Pinang in those days. There can be no hesitation in asserting that since the abolition of the old form of Government, in 1830, the police of all three stations has, till within the last few years, been inefficient, but under the more liberal expenditure of former years, it may have been better, and the doubts which may be raised on this point tend to embarrass the question. It appears clear that the abolition of the gaming farm was not attended with a great diminution of the vice, and in 1818 the subject was again urged on the attention of Govern-

ment. It was triumphantly asserted that the system of total suppression was a failure, and the experience of 7 years was brought forward as a further and convincing proof of the impossibility of total prevention. The argument had weight, as some of those who had signed the Presentments of 1808 and 1809, now, when asked for their opinion, freely confessed that they had been disappointed. In the statements brought forward, it appears to have been taken for granted that it was quite impossible for the police authorities to deal with the case. It was asserted that the police had been corrupted, and, in consequence, that gaming had increased rather than diminished. The question as to the ability to prevent the universal corruption among the police was not entered on. It was considered as proved that the magistrates had done their duty, by the production of the numerous convictions made by them for the offence of gaming. At the present day these arguments would not be received as conclusive. Since the executive management of police has been taken in hand with some degree of intelligence, much information has been acquired on these subjects, and we have little difficulty in arriving, by analogy, at the conclusion expressed at the time by the more enlightened members of society, that, from want of proper management and care on the part of the police authorities, no opportunity was afforded of really proving the practicability of totally suppressing common gaming. It would appear that the subordinate officers of police were, from neglect, allowed to make a farm for their own benefit, by a politic arrangement of charges brought by them against persons for gaming.

The Governor consulted, among others, Sir Ralph Rice, the Recorder, on this important subject. The opinion given by Sir Ralph was, as he himself informed the Governor, not satisfactory, as his short residence precluded any personal experience. Viewing the question as one of morality and not of revenue, and on the understanding that the whole object of Government was the discouragement of the vice, Sir Ralph said that public gaming houses would become a place of resort and of the most artful temptation to the young, the giddy and the profligate, that the interests of the farmer would induce him to use every temptation, and try every device to cherish the ruinous passion for gaming, and "inveterate as may

“ be the habit of gaming, I own I think that, as a general principle, every practicable measure of law and of Police should be cautiously, gradually, but firmly adopted, and proved beyond the remotest doubt to be ineffectual, before a measure (legalizing public gaming houses) pregnant with such mischief should be sanctioned by the legislature.” The Palais Royal of Paris was held up as a notable example of the evils of sanctioning public gaming. The assertion that the Chinese and Malays would desert the place if gaming were strictly prohibited was doubted, except as regards the worst classes of the population whose absence would probably be a benefit. The rich natives would continue to gamble privately in their houses, whether public tables were permitted or not, and as the lower classes would alone be found to frequent public gaming houses and as they had not the means of securing secrecy if gaming were prohibited, it was argued that an efficient police would be able to prevent public gaming. Sir Ralph further informed the Governor that before carrying out any regulation it would be necessary to obtain the consent of the Court of Directors and Board of Controul, and to obtain their consent mere assertion would not suffice—after the opinion (above given) of the Court they would require facts to prove that gaming had increased. A memorandum ought to be sent shewing the number of convictions for gaming, and also pointing out “ all the active and minute means which have been taken, and taken so ineffectually, to repress this vice.” With regard to legality, Sir Ralph said public gaming houses were indictable by common law, and, without an act of Parliament, no contract with respect to them could be recognized in a court of law. It would also, he added, be necessary to have legislative power to prevent private gaming which is only illegal by statute.

The Governor in Council, in a letter to the Court of Directors, dated 3rd April, 1818, urged most strongly on that body the propriety of allowing licenses to be issued under very strict regulations as the only way for checking the vice. A long list was sent home including 690 convictions for gaming, some of the parties having been convicted 8 or 9 times. It was stated that the passion for gaming among the Chinese and Malays who resort to the Island was too strong to be overcome by any prohibitory laws, which would not have the effect of driving them from the island; that, in

spite of every attempt to prevent it, clandestine gaming had prevailed to a very great extent; that, as gaming could not be prevented, it was proper to consider by what means the evils arising from it could be diminished; and that, in the deliberate opinion of the Governor in Council, the best means to accomplish the object would be to legalize gaming under very strict rules and restrictions. The Court, in their reply, dated 23rd January, 1822, finding the local Government had considered the question in such a deliberate and complete manner, gave sanction to their plans in the following words—"We have much doubt of the fitness and probable efficacy of these measures, but the experiment we doubt not may be safely left in your hands and we will not object to your making it."

Before this letter arrived at Pinang the interest in the subject had declined, owing to the death of the former Governor, and it was not revived till the year 1824.

Elsewhere, a powerful opponent had arisen in the person of Sir Stamford Raffles. The great evils of legalized gaming had been forcibly brought to his notice in Java, where, under Dutch rule, the system was in full force. Sir Stamford abolished the farm of gaming and assured Government that the beneficial effect of that measure were quickly observed. Afterwards he pursued the same course at Bencoolen, which place appears to have been remarkable for a general laxity of morals among all classes, and the result of abolishing the gaming and cock-fighting farms was so evidently encouraging, that afterwards, in drawing up a constitution for the new settlement of Singapore, gaming was prohibited. After a few months however, in Sir Stamford's absence, the Resident gradually commenced to permit gaming under licenses which soon degenerated into the farming system. On his return to Singapore, in October 1822, Sir Stamford found himself opposed in opinion to the Resident, who had been, for the greater portion of his official life, confined to the narrow incidence of affairs in the decayed Dutch station of Malacca, and who, in Sir Stamford's opinion, was disqualified for forming a broad and statesmanlike view of this and similar matters of Government. The Magistrates were appealed to,—they unanimously represented the great and growing evils of the gaming licenses, and with their advice and countenance, though against the protest of the Resident, the system was abolished and

public gaming prohibited. On making over charge of the settlement to a new Resident in June 1823, Sir Stamford earnestly entreated him on no account to permit public gaming, as it would tend most seriously to injure the prospects of a settlement which he believed would soon rise to great consequence. The following extract of a letter from Sir Stamford to the secretary to the Supreme Government, dated Bencoolen, 1st December 1823, will show the result of his entreaties. "It is with pain and surprise " that I have recently learned from public report that, since my " quitting Singapore, the Resident, notwithstanding my positive " instructions to maintain the Regulation in this respect inviolate, " unless it was suppressed by higher authority, has so far departed " from its letter and principle as again, openly and publicly, to " license public gaming houses for a pecuniary consideration to be " paid to Government"! "

" Under these circumstances I must again appeal to the Governor General in Council to uphold the principle which I felt it " my duty to lay down, and which has been so fully concurred in " and approved of by his high authority."

" The well disposed inhabitants of Singapore naturally look to " the support of the Supreme Government in this question, which " involves no less the character of the place, than the interests of " those who reside in it, and who, unless they are to consider the " orders of that high authority as conclusive and final, can never " be expected to place due confidence in our Government."

In his letter reporting the abolition of the licenses allowed by the former Resident, Sir Stamford says:—"It is alleged, in " support of the gaming farm, that, by putting it under regula- " tions, the quantity of vice is diminished, but independently of " the want of authority in any human Government to counten- " ance evil for the sake of good, I cannot admit that the effects " of any regulations whatever, established on such a principle, " are to be put in competition with the solid advantages which " must accrue from the administration of a Government acting " on strict moral principles, discountenancing vice, and exercising " its best efforts to repress it."

Sir Stamford utterly repudiated the principle which appeared to have been acknowledged in Pinang, that it was necessary to

relax the rules of Government and morality in order to induce the immigration of Chinese and other traders. Convinced of the natural advantages of Singapore, and foreseeing its future prosperity, he anxiously endeavoured to protect it from the inconvenience which must arise from sacrificing principle to expediency, and if, in the first instance, the local "Residents" had carried out his instructions, the settlement would probably have been saved from many irregularities which now have arisen to such a height as most materially to interfere with its well being.

The new Resident early took up a contrary view on the subject of gaming. In addition to the arguments formerly urged at Pinang, he was of opinion, "the attempts made to put the practice of gaming down appear to me little better than charlatanerie in such societies as those of our eastern settlements, where the mass of the inhabitants is habitually addicted to play, and where it is viewed only as a harmless amusement. It is said to be disgraceful to gain a revenue by gaming, not surely more so than making a revenue by drunkenness,\* for both as far as regards gaming and the consumption of wine and spirits, it is impracticable to distinguish between vicious and harmless indulgence; at all events, it is consistent with every principle of wise legislation that that which cannot be prevented ought to be regulated." The Resident agreed that, while Government ought not, under the circumstances, to reject the revenue to be derived from gaming, it ought, as far as possible, to discourage the increase of the vice by strict regulations. In practice, however, the result was as had been predicted. To prevent any appearance of mistake as to his intentions and doings, the Resident's own words are here given. On the 31st May, 1825, in reporting the sale of the farms, the following passage occurs:— "The object chiefly held in view in the arrangement submitted

\* Alluding to the Spirit Farm. It has not even till this day been considered objectionable to encourage the consumption of opium and spirits among the native population of these settlements, and at a time when the European Government is spending the national revenue in one part of the empire for the discouragement of vicious propensities, the local Government is in these settlements deriving  $\frac{1}{2}$ ths of its gross revenues by the active encouragement of opium and bang smoking and spirit drinking.

By classing Singapore with an eastern settlement, the Resident apparently was not impressed with the extended views of Sir Stamford Raffles.



“ to the Government\* is to produce competition, and by this means to afford to the Government the highest prices for the licenses with the best security for the realization of the revenue and to the public the greatest practicable accommodation. With this view it will be observed that the Chinese gaming houses are subdivided into 12, opium into 5 &c &c.” This is certainly not in accordance with the view stated in urging on the Supreme Government the legalizing of gaming. The same Resident, in answer to a reference from Government, writes as follows on the 22d of January 1824—“ Nothing has occurred since that measure (sale of gaming licenses) to lead to a belief of the possibility of suppressing gaming altogether, and I feel thoroughly persuaded that the surest means of limiting and controlling this vice is not to attempt to prohibit it altogether but to place it under a strict system of license, and as in the similar cases of the consumption of ardent spirits, opium and other intoxicating drugs, to make the practice of it as expensive as possible to those who are deterred to indulge in it without driving them to the resource of a clandestine place.” As to the opinion offered by the Resident above that gaming is viewed as a “ harmless amusement” it is only necessary to advert to the fact that the dreadful consequences to the natives themselves, arising from an indulgence of the vice, formed one of the leading arguments of the Pinang Government in pressing on the home authorities the necessity of lessening the vice by placing it under the strict rules of a revenue farm.

Before going up to the Supreme Government with his plan for legalizing gaming, the Resident had addressed the Magistrates for their advice and co-operation, but the non-officials unanimously protested against the principle of recognizing the vice in any shape, as likely to be detrimental to the best interest of the settlement. The Resident however persisted and the measure was passed. On the 29th August, 1823, a letter was addressed by the Resident to the Magistrates, directing them to suspend all proceedings against gaming, as, in consequence of an extensive conspiracy among the native police to defeat the regulation against gaming, and in consequence of repeated and earnest representations of the principal Chinese inhabitants, he (the Resident) had arranged to

\* An alteration in the mode of disposing of the revenue farms.

permit gaming by license, under strict rules and restraints. As there was no Royal Court of Justice to interfere, by refusing, without an act of Parliament, to recognize the legality of contracts founded on gaming, and as the public had no means of making their objection known, the Supreme Government confirmed the arrangement.

This success emboldened the Pinang Government to renew the consideration of the subject at their island, and as the Home authorities had sanctioned a trial of the licensing principle the draft of a regulation was sent home for sanction on the 2nd June, 1825. The answer, dated 10th May, 1826, to this reference was not favourable. The regulation was suspended, and fresh information called for as to the alleged fact that gaming had increased since the abolition of the old farm, and the reasons for the increase, also the grounds for the opinion that the enforcement of the present regulation would reduce the evil.

Fresh opinions and statements were called for from the local officers, and as it was again unhesitatingly received as a fact that gaming could not be put down by the police, it appeared to follow as a consequence that the police was considered to be efficient in other respects from the fact that no steps were taken for improvement. It was shortly stated, in respect to gaming, that the police were corrupt and would remain corrupt till the restoration of the gaming farm, but it was not discussed whether an ordinary degree of supervision, by an officer higher than a Constable, would not be sufficient to check this universal and apparently open corruption. The result of the fresh reference was sent to England in December, 1826, but nothing further was attempted in the way of re-establishment at Pinang, and, on Singapore and Malacca being placed under the Royal Court, the Grand Jury at the former place took the earliest opportunity of presenting the gaming farm as a nuisance, in consequence of which it was abolished both there and at Malacca, where the Recorder simply directed the Magistrates "in future not to allow the existence of these places" (gaming houses).

The revenues derived from the gaming farms were very large at Pinang and Singapore; the amounts collected were as follows:

	Population.	Yearly rent.	Or for each individual.
1807.—Pinang . . . .	14,000	Rs 68,768	Rs 4 8 9
1827.—Singapore ..	12,907	71,283	5 ½
„ Malacca . . . .	33,162	9,598	0 ¼

At the present day, when more just sentiments prevail as to the position and requirements of these settlements, it will be needless to argue on the necessity of purifying the administration to the same extent as in any other British colony, but the following extract from a minute, dated 29th May, 1829, and written by one of the ablest Governors of Pinang, will fully prove that it is only of late date that the true interests of the settlements have been recognized as British colonies, and not as mere dependencies of British India. The writer of the "minute" states:—"The above farm (gaming farm) has been sanctioned by the long established custom of these countries, as already amply discussed, and the case is only one amongst many others, tending to shew the utter inapplicability of the common law of England to the customs and usages of the eastern settlements." The reverse of this argument would at the present day meet more favour.

After the abolition of the gaming farms at the three stations, matters were allowed to go on in such a neglected way as to prevention, that it was asserted to have been an object to prove the great evils of the abolition, and to force on a return to the gaming system. The revenue to be derived from this source (equally, as Sir Stamford Raffles said, with a permission for piracy or larceny) was enormous and very much desired by the local officers, who suffered under constant remonstrances against the heavy charge of these settlements, and were anxious to avail themselves of any possible resource. The real reason, however, of the sufferance must be looked for in the inefficiency of the old police. Since the reform of the Straits police, commencing in Singapore in 1843, and in Pinang in 1849, the vice has been brought under controul sufficiently to put a stop to the open and known exhibition of gaming before the eyes of the public. It has now become the rule that any increase of public gaming houses is a marked proof of the inefficiency of the police, and, as soon as public attention is drawn to the fact, the nuisance is

promptly abated. It cannot be denied that here, as in London, there are gaming houses which carry on their operations so secretly as to defy the police, but the very fact of the secrecy is a proof that the evil is lessened as far as the general public is concerned. The injury which must accrue to individuals from an indulgence in gaming must apparently remain, here as elsewhere, irremediable by any practicable police arrangements. It is evidently better that a few individuals, at great risk to themselves, should be still able to meet in secret for the indulgence of their vices, than that the public morals should be contaminated by the open exhibition of gaming under the patronage and encouragement of Government.

The result of the police operations at Singapore in 1846, have fully proved to the community the perfect practicability of extirpating public gaming, and they now rest satisfied in the conviction entertained by the more liberal from the first, that any great increase in the nuisance is to be attributed to inefficiency in the police, and that the total extirpation of the vice may be effected as soon as it can be attempted without injury to the other revenue farms. In a state of society where so large a proportion of the public revenues are derived from the encouragement of opium and baang smoking and the drinking of spirits, the public does not expect perfection.

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In describing the vices of the Chinese, next to gambling must be considered opium smoking. The one is destructive to their moral and the other to their physical health.

The subject of the effect of the use of opium on the human constitution has long been discussed in Europe, where the drug has met with its defenders, but there can be little doubt that if any of those defenders had ever had the opportunity of observing the effects of the use of opium on its devotees in this country, their opinions must have altered. The subject has been fully examined by one of the most extensive medical practitioners in Singapore, and the results of his observations and practical experience have been published in an elaborate article in the 1st number of the "Journal of the Indian Archipelago" for the year 1848. From the great care and pains bestowed on that article, it forms the best

text book for any one in search of information on a subject so nearly touching the best interests of these settlements and of the most valuable and advanced class of our native population, and I shall content myself with pointing out such portions as appear to illustrate the subject in its various lights, merely premising that no one of local knowledge and experience can possibly doubt the awful results to the Chinese from an addiction to the vice.

The opening paragraph is here given in full as the best introduction to the melancholy details which follow :—

“ The subject of this paper is one which in spite of the imperfect manner in which it may be handled, ought to claim the serious attention of all.

“ It has, up to the present moment, engaged the attention of the government, in so far only as it affords facilities for raising money; and the public in general, whether residents here, or passing strangers, have looked on the miserable devotees to the vice of opium smoking in the same light, and visited their abodes with the same curiosity, as they would have done a den of wild beasts, or a raving lunatic's cell. They enter the opium shop, by pushing aside a filthy mat, and, in a small space, they see many men crowded and crouching on a narrow board; dim lights faintly disclose their squalid appearance; the air is impregnated with a close suffocating odour; the heat is oppressive;—a few questions are asked by the visitor, a pipe is shown, a human being gazed upon as he slowly, to all appearance, with much gusto, inhales the sedative vapours;—at last, unable to endure it any longer, a rush is made by the visitor to the door, and, according to his preconceived opinion, what has been seen is either a blot as black as Erebus, a canker eating into the vitals of society, a moral curse attended with great and deep physical evils, which are slowly, but surely, extending; or it may be looked upon as one way of spending money, not a bad plan for raising the revenue, a lighter curse than dram drinking and a far pleasanter, where the young men dream dreams; and the old men see sights. But let the philanthropist pass from house to house, mark the appearance of the visitors, pursue them to their homes, when, reeling from the effects of the drug, they, heedless of wife or children, pass into a disturbed sleep, to waken to the tortures of the damned

when the sun is up in the horizon, and the industrious of their fellow creatures have been at work for hours ; this is the moment they appreciate their wretchedness, when feverish and hot, with a tongue that is dry, yet cannot be moistened, lips that are cracked, yet cannot be softened, a throat parched and thirst excessive, that cannot be quenched, with eyes either closed or running with rheum, a tightness of the chest that prevents breathing, a lassitude, a langour, a pain in all the bones, a downright incapability of exertion, a loathing of food and a craving for one thing only, which not to attain is worse than death,—and that is another draught of the poison, which soothes for the moment, but clenches the faster the misery of the wretches. No overdrawn picture is this, but sketched from life, yea more by the victims themselves, and of these victims there are at least 15,000 in Singapore. Surely the importance of the subject will not now be questioned, and a little attention can safely be claimed to the particulars which have justified me in making the above statement."

After describing the various kinds of opium known in commerce, and the kinds chiefly used in these countries, the writer goes on to give a short sketch of the history of the opium trade, from which it appears that although the narcotic effect of opium has been recognised and the drug has been an article of commerce in the Archipelago for some centuries, yet its use as an intoxicating medicine in China has been of late growth. The first adventure in opium to China was made by the Company in the year 1773 and its evil effects on the morals of the Chinese were so quickly and evidently seen that in 1796 it was declared criminal to smoke opium. Notwithstanding this prohibition the allurements to the vice are so extraordinary that the trade has increased from a couple of hundred to forty-thousand chests of yearly import, to the value of upwards of £5,000,000 sterling.

Nearly all our old fiscal and general regulations in these seas have been taken from the Dutch, who apparently copied Malayan Institutions as far as they found them suitable to the system of their government. The tax on the consumption of opium was early seized on as a profitable and convenient source of revenue and on the establishment of the Bencoolen Government the example was followed. At that time, before the enlightenment and advance of

political knowledge, which have since marked British rule, had reached these countries, it was not to be wondered at that any system of financial management which promised such fruitful results with so little trouble as the renting of gambling and opium farms should be eagerly seized on, but it must be confessed that in these days it were much to be desired that the encouragement necessarily accompanying a government sanction of such vices should cease. If the difficulties attending a total loss of the revenue derived from the sale of opium in these settlements should have proved too great to be readily overcome, it is still strongly urged that in forming the new English Settlements at Hongkong and Labuan the English Government should not have given their high sanction to a system which, to secure a trifling revenue, acts in the most injurious manner on the moral welfare of the settlement, and on the reputation of that government. It is argued that the same government which, in the one part of its dominions, exerts its whole influence to curtail the vice of intoxication ought not in another quarter to lend the aid of official authority to encourage such vices.

As in the case of gaming so in opium smoking it has been hastily assumed that the vice was ineradicable, and that no attempt for its total suppression could possibly succeed, and in consequence that the next best thing to do was to diminish as far as possible the evil effects to the public, by surrounding an indulgence with such difficulty and expence by strict fiscal and police regulations as to discourage any but those most accustomed from using the drug. This argument, which appears to be sufficiently specious, has been brought forward to excuse the existence of the present system; but those conversant with the facts of the case deny the goodness of the inference supposed to be drawn from the premises, and assert that the result has uniformly proved that the system in force has a tendency to encourage rather than restrain the industrious classes in their indulgence of the vice.

By an Act of the Legislative Council of India No. 14 of 1851, the exclusive privilege of dealing in opium in less quantities than one chest, and of preparing opium for smoking in the Straits Settlement is vested in the local government, who yearly sell it to the highest bidder, generally, indeed of late years always,

a Chinese who is called the Farmer. The act provides very strict penalties for any infringement of the farmer's rights and he is allowed to have a certain number of licensed shops for the retail sale of the prepared opium. These shops are marked by having a large board hung up in front with the words "licensed opium shop" printed in large letters. Any one who has gone through the streets of our three towns must have been surprised to observe the vast numbers of such shops.

The mode of using opium here is peculiar. The extract is not used in its crude form, but only after undergoing a purifying process with water and fire, by which all extraneous matters are expelled, and the drug is reduced in quantity and brought to the state of a paste of the consistency and appearance of thick treacle. In this state it is known as "chandoo" and is used in smoking through a pipe of a peculiar form. A hollow bambu about an inch in diameter and a foot in length is surmounted by a small covered cup which is screwed to a metal plate let in on one end of the bambu. On the cover of the cup there is a small hole like the touch-hole on a child's cannon, the other end of the bambu is closed with a plate, in the centre of which is another small hole from which to inhale. Some of these pipes are very expensively fitted, while others again are of much more primitive form. Taking a little chandoo on the end of a sharp iron stylus the smoker frizzles it in the flame of the lamp, and after turning it about a little enters it at the touch-hole of the pipe, from whence he inhales the smoke of the burning opium.

The physical effects of a continued use of opium are apparent to the most casual observer resulting in a complete prostration of strength, and leaving the hale strong man a mere useless incumbrance.

While the physical effects of the vice are so terrible to individuals, we shall on enquiring find that the moral results carry an influence even more fatal or not confined in its action to the victims themselves, but eating as a canker into the moral health of the settlement and leading to the fatal results which always attend vicious indulgence.

Having thus briefly glanced to the effects of opium smoking on its votaries, we may now enquire as to the extent of the evil and its



effects on the public good. In the absence of any official record of the quantity of opium used by the several farmers, and of the quantity smuggled, it is difficult to arrive at a just estimate, but it may be calculated that the monthly quantity used in the three settlements of Singapore, Pinang with Province Wellesley, and Malacca does not fall short of 75 chests, or yearly 900 chests. Now the price paid by the consumers for this opium exceeds 1,100 dollars per chest, or on the whole 990,000 dollars, or say in round numbers one million of dollars. The expenditure of this sum, not to mention the vast injury done by the use of opium, actually benefits no one in the place but the farmer, as the small amount received by the few merchants for commission on the sale of 900 chests would be much more than counterbalanced by their profits in other articles which would take the place of opium. How much good would accrue to the settlement if this sum of one million of dollars were to be expended yearly in the purchase of manufactures or articles the use of which would benefit all parties, instead of as now in purchasing a drug which only acts as a poison.

The number of persons addicted to the vice of opium smoking has been calculated to exceed 40,000, distributed as follows:—Singapore 15,000, Pinang with Province Wellesley 12,000, Malacca with the Cassang tin miners 13,000. These numbers never decrease, as when the habit of smoking is once acquired it is impossible to break it without medicine, which the poor have no means of securing.

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## JOURNAL OF A TOUR ON THE KAPUAS.\*

1840, March 26.—At 2 o'clock P. M. we took leave of our families, and set out on our contemplated tour into the interior of the island. It is our intention to ascend the Kapuas river as far at least as Sangau, some six or seven days from Pontianak, from thence return to Tyan, and from Tyan cross by land to Landak, from whence we hope to reach Pontianak again by way of Mandoor, a Chinese settlement, three days distant by land from Landak. The principal object of the present tour is to endeavour to gain as much knowledge as possible of the numbers, characters, habits and situation of the Dyak tribes of the interior, and ascertain by personal observation the openings for missionary labour, and the most eligible site for a station among them. Both the Resident and Sultan of Pontianak have kindly furnished us with letters to the chief men at the principal places we design to visit.

Our boat is of the class called here bedar. This kind of boat is used by the European residents of the place, and the chief men among the natives, to the kindness of one of whom, the Pangeran Bandahara, a brother of the Sultan, we are indebted for the loan of this on the present occasion. It is about thirty feet in length, six feet in breadth in the centre, and rather light in its construction. A small frame work in the after part supports a shelter of thatched kajang, the space beneath which just allows room for our travelling trunks and spreading of our mattresses, which form at once our seat by day and our bed by night, for in a Malay boat a traveller looks in vain for a stool, bench, or elevation of any kind to serve for a scat; nor will the lowness of the

\* The Kapuas is the principal river on the West Coast of Borneo, and is supposed to take its rise in the Batang Lupar range of mountains. The enterprising traveller Madame Ida Pfeiffer, in the beginning of 1852, crossed the hill range which divides Sarawak from the country watered by the Kapuas and, embarking at the lakes which appear to be situated at the foot of this range, descended the Kapuas to Pontianak. In March 1855, Mr A. Prins, the Government Commissioner for the Western Division of Borneo, ascended the Kapuas in a small steamer, visiting the lakes (which are connected with the Kapuas by several outlets) and proceeding much further up the river than had been previously attempted with a steamer. The object of this voyage was to make contracts with the chiefs of the numerous petty Dyak and Malay states situated on the Kapuas, by which they recognised the sovereignty of the Netherlands Government and placed themselves under its protection. The following narrative of a voyage up part of the Kapuas, originally appeared in the *Singapore Free Press*, in 1840, and was written by two intelligent American Missionaries then stationed at Pontianak.—*Ed.*

roof or awning over head admit of relief in a standing posture. On each side of us, as far as our matrasses reach, are screens of *kajang* hung upon rattan hinges which may be elevated at pleasure to admit the air and to enable us to view the banks of the river. Most of our baggage finds a place beneath the boards or flooring that form the deck of our boat, and our rowers, six in number, under a temporary *kajang* shelter, occupy the fore part. When a native of consequence ascends the river in such a boat more than double our number of men are generally employed.

About an hour after leaving Pontianak we passed Nibong Saribu, a settlement of Chinese, containing a population of about five hundred souls, situated on the left bank of the river. The inhabitants cultivate small plantations of vegetables, siri and sugar-cane, for the Pontianak market. There is a small sugar-making establishment in the settlement. Another hour brought us to Pengharapan where the Dutch have had a sugar manufactory in operation for some years past. Large sums of money have been expended upon it, but owing to difficulties in procuring a moving power to be applied to the cast rollers for expressing the juice of the cane, and in drying and preparing the sugar for market, on account of the extreme humidity of the atmosphere, it has proved an unprofitable investment of capital, and has recently been abandoned without realizing what was anticipated, when by the first projectors of the enterprize the name was given to the place which it now bears, Pengharapan.

At a distance of a mile and a half or two miles from Pengharapan we passed a small Malay kampong over which a Kling man, resident in the place, "clothed with a little brief authority" by the Sultan of Pontianak, exercises a kind of guardianship. There is a mosque which owes its existence to the zeal of this strict Mohomedan prince. This place is designed as the first stage in his trips up the river where he may stop for refreshment, rest, and to perform the duties of his religion.

After passing Quala Dua, a small stream on which are a few Chinese a short distance into the interior, we reached Teluk Kompei, on the right, a small Chinese settlement of some thirty dwellings, between five and six o'clock, where we stopped to prepare and take our evening meal. All the places abovementioned,

with the exception of Quala Dua, we had before visited and supplied the readers both Chinese and Malay with tracts. Having remained at Teluk Kompei about an hour we proceeded up the river, lighted on our way by almost constant vivid flashes of lightning accompanied with heavy peals of thunder, until a little past 9 o'clock, when we fastened our boat for the night to some logs in front of a few Malay dwellings situated at the mouth of a small creek.

27th—Rain fell during the greater part of the night attended with lightning and thunder, calculated to fill the mind with solemn awe. Our men who had nothing to screen them were much annoyed by musquitoes, and although we were furnished with curtains which kept out most of these unwelcome visitors yet owing to the novelty of our situation, lying in a small boat, the sides of which are only a few inches above the water, the buzzing of musquitoes, screams of monkeys in the adjoining forests, added to the thoughts of the dangers and trials to which we might be exposed on our journey, prevented us from sleeping as soundly as under ordinary circumstances we might have done.

After our morning repast at about past 6 o'clock we left and proceeded our on way. On the right shore during the course of the morning were seen a few Malay dwellings and cleared patches near the water's edge, but the left bank, except one or two small clearings, presented no traces of the hand of cultivation, but appeared low, woody and monotonous. Passed before noon the mouths of several small creeks, the banks of some of which are inhabited by Malays who cultivate rice, vegetables &c. One is noted as being formerly the resort of banditti, who since the possession of Portianak by the Dutch have disappeared.

About noon we stopped at a place called Tanjong Quaw, a small Malay settlement. This is another of the Sultan's stopping places; and among the dwellings is one erected by him for the purposes above referred to. Shortly after leaving this place saw two small crocodiles a short distance from each other basking on the shore. They were about six feet in length. From Tanjong Quaw the river banks appeared rather more open, particularly on the right, until between three and four o'clock P. M. when we passed a place called Sukalanting containing about 40 Malay dwellings. Here

also the Sultan has a small building erected for his accommodation. From Pontianak to to this place the Kapuas is about two hundred yards average width, quite circuitous, the banks low and inundated at spring tides, especially during the rainy season. At Sukalanting the Kapuas divides, sending off less than half its waters by this place, in nearly a north west direction to Pontianak, where joining with the Landak it forms the Pontianak or Lewa river, while a large body of water passes off in a western direction. At the distance of about half a day from Sukalanting this stream called Punggur divides, part of it continuing to flow to the west until it reaches the sea, and part flowing to the south called Ola-Ola, the term here for eddies, which owing probably to the rapidity of the current and the sudden bends of the stream, are said to be very numerous. The Ola-Ola also divides, and a part of its waters turning westward are discharged into the sea at a place called Membawang where there is a small settlement of Chinese. The remaining waters fall into the sea some distance to the south at Kubu, a settlement of Malays and Chinese. The inhabitants of both these places are principally engaged in taking fish, which is dried or salted for the Pontianak and other markets. At Kubu some excellent rice is produced, and at the same place are obtained honey and wax of superior quality. The place is said to be very unhealthy, so much so that but few of the Chinese who go there live more than three or four years. A year or two since, one of the largest of the Pontianak ships, of between two and three hundred tons measurement, passed up the Punggur, mistaking its mouth for the Pontianak, to Sukalanting, and from thence was carried by the current down the Kapuas to Pontianak. In fact all these mouths are navigable for vessels, and as the water on the sand bars at the sea is said to be of greater depth than at the the mouth of the Pontianak (where vessels are often detained for weeks, sometimes for months) with a strong favoring sea breeze this although circuitous way would most probably be sometimes preferred, were it not that the Government forbids the entrance of vessels by these streams. Two small forts have recently been erected at Sukalanting by order of the Sultan of Pontianak, within each of which are mounted two or three guns. These forts are simple wooden inclosures, constructed of thick plank or split

timbers, 15 or 20 feet long, set upright and driven into the earth. In contending with a European force they would furnish no protection, but in invasions of piratical Dyaks and other natives, who are almost altogether unacquainted with the use of artillery, they are sufficiently formidable. About two years since, previous to the erection of these forts, piratical Dyaks from Saribas, led on by some run-way Malays of Pontianak and others, ascended the Punggur to this place, burned one house, decapitated three or four persons here, and a few more further up the river. Above the forks we found the Kapuas spreading out into a most noble stream, half a mile in width, very deep, and the current strong except when checked by the rising tides of the sea. Just at this place some peculiarity in the foliage of the trees on the river banks, as seen at a distance, gave them an appearance so often seen in American forests in the early autumn. It struck us as something peculiar in this land where constant summer clothes the trees in a robe of perpetual green, and did not fail to call up to the mind many tender and pleasing associations.

A little before sunset we reached a small island in the stream called Pulo Binge. The shores of the island and river opposite were once inhabited, but are now deserted and lonely. As there were no dwellings near, between six and seven o'clock we tied our boat to a tree on the river's bank just above the little island and proposed to pass the night in this place. Multitudes of fire flies were here sporting a little above the water on the leaves and branches. Some particular bushes, which seemed to be the favorite resorts with them, were most beautifully illuminated by their little lamps, and at each flash of light as they raised their wings, the reflection from the waters beneath added much to the beauty of the scene. Our boatman gave as their reason for selecting this spot, that no mosquitoes were to be found in the vicinity of these illuminers of the darkness. This in the present instance, much to our comfort, we find true, but whether the absence of the mosquitoes is owing to the presence of the fly (as the Malays suppose) or to some other cause we cannot say.

Have rowed about ten hours to-day, and the distance passed over has been probably, following the bends of the river, about thirty miles, but in a direct line not more than fifteen or twenty.

28th—Awoke this morning between 3 and 4 o'clock and soon after proceeded on our way by moon-light. Shortly after sun-rise our boatmen stopped to cook and bathe near the mouths of two small streams. The place is called Lunchur Naga, and it is fabled that in former times two very large serpents entered the Kapuas by these streams and pursued their way to the sea. The memories of many Malays are stored with legends of this kind. We found the ground here a little elevated into something that bore the semblance of a hill, the first we have seen since we entered the mouth of the Pontianak river. At 10 o'clock we saw the first blue mountain top. It is called Gunong Tiang Kandang, and is situated between Tyan and Landak. Not long after Gunong Balungie, south of Tyan, was visible. The course of the river today has been very winding, more so than yesterday, and the average width between  $\frac{1}{2}$  and  $\frac{1}{3}$  a mile—the banks low and covered with an almost impenetrable forest.

29th. Soon after mooring our boat last night a heavy shower came on accompanied with most vivid lightning and heavy peals of thunder. We found that the kajang of our boat, which we before considered tight, leaked considerably. We next found ourselves invaded by hordes of mosquitoes more numerous than the hosts of Xerxes. In vain did we try to screen ourselves behind our curtains, for in spite of all our efforts numbers of the insidious foe found out our retreat and seemed determined to feast upon our blood—while the more numerous host without kept up a continual roar, and if our hands or any other part of our bodies touched the curtains, we were stung through them. Being thus prevented from sleeping, as soon as the moon arose, which was about 4 o'clock, our men were desirous of proceeding, to which we did not object.

About sun rise we passed the upper end of Pulo Limbong. On this island there were formerly inhabitants but it is now quite deserted. A few moments more took us past the lower or western point of Pulo Jambu or Guava isle, so called from the number of guava trees cultivated upon it. On this island there were a few years since a considerable number of inhabitants, Chinese and Malays, but none at present. Here terminates the jurisdiction of the Sultan of Pontianak, and that of the Panambahan of Tyan

begins. At 10 A. M. we passed the head or eastern end of this island. On this point there was formerly a small wooden fort, and another on the western end of Saparoh, a small island in the river, a little higher up. At Tanjong Jurung, a point on the shore opposite to Pulo Jambu, lying northward of it, there were formerly many Dyaks, who not long since removed further into the interior. On the south of this island there is another outlet of the Kapuas, by which part of its waters pass to the sea. The fork at the Kapuas is called Simpang Dawak, and the mouth of the stream, where it enters the sea near Succadana, Quala Mandup. The volume of water passing this way to the sea is considerable, but not to be compared to the Punggur at Sukalanting. Northward of the island, some distance in the interior, are the first settlements of Dyaks found in ascending the river. At half-past ten o'clock we stopped for rest and refreshment at the lower end of Pulo Saparoh. Here were two Malay dwellings, the first seen since last night, containing some fifteen or twenty inmates. The situation is pleasant, on rising undulating grounds, and the soil apparently rich,—nothing seemed wanting but the hand of industry to make it a delightful spot. In the afternoon passed Pulo Katipo, another small island in the river. Several mountain peaks were now visible, and on the right shore three small Dyak huts, the first we have seen. Near sun-set reached a place called Jang, where we stopped for the night. Here were three Dyak dwellings, into one of which we entered. The inmates received us cordially, and answered cheerfully our questions; which were proposed in order to ascertain whether their language bore any resemblance to that of the Banjarmassing Dyaks, in whose language we have a small elementary book, but we could not learn that there existed any resemblance in proper or common names. As soon as we returned to our boat, the Dyaks brought us the present of a fowl, cucumbers, and a little rice, for which we gave them a small present in return.

30th.—About 4 o'clock this morning we left Jang, being anxious to reach Tyan at as early an hour as possible. We now saw a few Dyak dwellings on each shore. A little before 7 o'clock we stopped near one of these habitations for breakfast. We stepped on shore and entered the house, which stood in a patch



of paddy ground, and found the occupants a truly interesting family, consisting of a man, his wife and two sons. The man was of really noble mien, about 6 feet in height, with an open intelligent countenance, his eyes dark, and cheek bones high—while his erect form, athletic and well proportioned limbs, indicative of great muscular power, rendered him a fit subject for the sculptor's chisel. His sons, probably about 11 and 12 years of age, of well formed limbs, and bright pleasant countenances, had just arrived in a boat from the opposite side of the river. They were entirely naked. It was truly pleasing to see them hanging upon the father and manifesting such strong filial affection as they did for him. When asked whether they would go with us to Pontianak and be instructed, they replied they could not leave their father and mother. The wife was in the rice field in which the dwelling stood, gathering in a rather large basket the ears of rice, and another grain new to us, the cultivation of which seems confined to the Dyaks—she soon bent her steps homeward with her basket of grain, which was held in its position on her back, by a strap passing from it to the forehead. She paused when she first saw us, as though afraid to approach, but again advanced after a few words addressed to her by her husband. They all understood and conversed quite fluently in the Malay language. The man confirmed what we had before heard of the Babel like diversity of languages among this people. Almost every separate tribe has its distinct language, understood only to a very limited extent by the nearest neighbouring tribes. The absence of books among them (the first attempt to commit their language to writing with which we are acquainted being that of the German brethren at Banjarmassing, in the elementary work above referred to;) and the existence of the most deadly feuds and animosities between the various tribes, presenting to mutual communication a barrier more impassable than that of mountains and seas, are probably the principal causes of this diversity. Were you to meet with Dyaks of such and such places could you hold communication with them by any common language? we inquired of this man. How would I dare visit them, was his instantaneous reply. By such an act of temerity, I would lose my head. When we looked at this interesting family group, only the representatives of thou-

sands and tens of thousands with physical and mental qualities not inferior perhaps to them, we could not help sighing when we considered their gross ignorance and superstition, the tyranny exercised over them, and the cruel practices to which most are addicted. Oh! that God would have mercy upon them and grant that their dark minds may soon be enlightened by the glorious rays of the blessed gospel. Upon leaving the Dyak dwelling its owner offered many apologies because he had nothing to present us.

At 8 o'clock met the Gezaghebber of Tyan accompanying his son and the greater part of his family, as far as Pulo Jambu on their way to Pontianak. The term Gezaghebber, it will be seen, is of Dutch origin, (but what precise idea they attach to the word we have not yet been able to ascertain.) He is the Dutch excise officer at Tyan, and exercises some authority on the part of the Government there. A small swivel was mounted on the bow of his little boat while several muskets lay at his side. He son followed in a large boat propelled by a kind of tread-wheel worked by men. He expects soon to follow his family to Pontianak, and is to be succeeded by a Dutchman, who at present has the command of one of the guard schooners. Before 10 A. M. passed two low mountains, Sumbayan and Champidik, some distance from the river on the left. The mouth of the creek that takes its rise in the latter mountain we passed some hours previously down the river. Here are situated some eight or nine Malay dwellings, while near the source of the stream and round the base of Champidik, there are a few Dyak *desas* containing a population of some three or four hundred. These Dyaks are under the Panambahan of Tyan. Panambahan is a title given to a prince next in rank below a Sultan. At this place also we came in sight of a few Chinese dwellings, the first seen since leaving Teluk Kompei. About 11 o'clock Tyan mountain appeared in sight, and shortly after we passed the mouth of the river Balungei on the right. Here is a small Malay *kampong* and a wooden fort erected by Pangeran Jaya, who resides here a part of his time. He has under his jurisdiction at Balungei,  $\frac{1}{2}$  or  $\frac{3}{4}$  of a day south of Tyan, 200 Dyaks and about 1,300 at Milian about one day east of Balungei. This Pangeran is not independent

but is only a deputy of the Rajah of Matan, whose authority extends to the Kapuas. Between twelve and one o'clock we reached Pulo Tyan, a small island in the river, on the eastern point of which is the Dutch fort and the residence of the Gezaghheber. The Dutch have only 12 native soldiers stationed here at present. Before the departure of the Gezaghheber's family (60 in number) there were on the island about 200 Malays. The Chinese kampong is also on the island. The Chinese population is partly of mixed character; part of Teo Chew and part Khek, numbering not more than 60 or 70 souls, including a few engaged in working mines a short distance down the river. The gold mines, however, in the vicinity are small, worked by from two to six men, and are said to yield at present but small quantities of the precious metal.

The revenue of the Dutch Government here arises from an impost on all produce and merchandize in boats ascending and descending the river, the privilege of working the mines, selling of pork, opium, &c.

A short distance north of Pulo Tyan, on the banks of a small river which empties into the Kapuas, is the village of Tyan, properly so called, containing according to the Gezaghheber about 250 inhabitants. Here the Panambahan resides; within whose jurisdiction there are 700 lawangs (or doors) of Dyaks, and probably between 3,800 and 4,000 souls. There are difficulties existing between the Dyaks of Tyan and Landak, which it is expected will break out into open hostilities on account of the pertinacity of the rulers, especially of the Panambahan of Tyan. The Dyaks of Landak are said to be the aggressors. The Panambahan having sent out his summons to all the Dyaks under his command, is now absent in the interior erecting forts and making other preparations for defence, as he is the weaker party and will probably act on the defensive should the difficulties terminate in war. An influential Malay man under him called upon us this afternoon and asked for books. We gave him a number; a part of which we requested him to give to his pugnacious master, which he promised to do, and seemed to be grateful for those given him. This evening we had a long conversation with one of our boatmen respecting the Christian

and Mahomedan religions. We endeavoured to show him the deficiency of his system, particularly on the great point of satisfaction for sin, and the superiority of the Christian system which so precisely meets the sinner's case. He listened attentively to what was said, but seems very much prejudiced in favor of his own religion.

31st—At eight o'clock, the hour of his appointment, we called upon the Gezaghebber, who had returned from his excursion down the river a little after midnight. He received us politely and contrary to the native custom invited us to sit upon chairs placed round a small table in the middle of an open hall. Coffee, rice, cakes, and confectionary prepared in Malay style were then brought in and set before us. The Gezaghebber is a brother of the Sultan of Pontianak and a man of considerable intelligence. Learning from a letter from the Resident of Pontianak as well as from our conversation, our wish upon our return from Sangau to go overland to Landak, he gave it as his opinion that it would not be prudent at present to cross, owing to the excited state of the Dyaks between the two places, but proposed, instead, that we should go up the river to Sintang, five or six days beyond Sangau, kindly offering at the same time to give us a letter to one of the most influential Pangerans of that place. We concluded to follow his advice, as we were unwilling to give any just occasion for the charge of rashness, which might have been the case had we determined to carry out our original plan in the face of the opinion of such a man. The distance between Tyan and Landak is about three days, one day by water ascending the Tyan a small winding stream—then one day by land to Saberang on the Landak river. From Landak to Tyan the journey might be made in a day less, owing to the currents of the rivers favouring. The banks of the river are about 6 or 7 feet above the present level of the river, but are sometimes inundated during the heavy rains. Having received the Gezaghebber's letter, we left Tyan about 11 o'clock for Sigalam, some 3 or 4 miles distant up the river or the right shore.—This is the residence of Pangeran Adapati who had sent us an invitation to visit him. He formerly resided in Tyan near the Panambahan; but owing to some difficulties that arose between them, he left a few years since and fixed his residence in this place.

On our arrival we were conducted into a large balci or front hall of the dwelling house, and took our seats by a long table covered with yellow cloth (upon benches covered with rugs). The hall is large, as are nearly all we have seen in this part of the world, being about 50 or 60 feet by 35 or 40, and open on three sides except a light railing. The posts of most of the timbers are kayu bilian (iron wood), and the roof of shingles laid on lath without any fastening except small wooden pegs to keep them from sliding down. Indeed all shingle roofs here are thus put on as the wind is seldom if ever of sufficient force to blow them off. The floor is of round poles from one to two inches in diameter laid close and made fast by rattans to timbers beneath. On this floor coarse mats are spread. Finer ones and rugs are sometimes laid over these, especially where persons of consequence are seated. Soon after our entrance the Pangeran made his appearance. He is not of the most prepossessing exterior but affable, polite, and hospitable. The male part of the Pangeran's household, and others, as is customary, were seated around listening to our conversation and conversing together. Females are seldom seen except peeping from behind some curtain or through some opening to get a sight of the visitors. The Pangeran and an interesting young man, his nephew, whom he has adopted, made many enquiries respecting our business, object in ascending the river, mode of support &c, and on all these points we gave them all the satisfaction in our power. Being desirous of visiting the Dyaks under this chief, of whom we had heard much, we asked the privilege which was readily granted. The young man above spoken of accompanied us. The Dyak kampongs are  $\frac{1}{2}$  or  $\frac{3}{4}$  of an hour up a small stream. This we ascended in a boat furnished by the Pangeran as ours was too large for the purpose. With the exception of a few hills the banks of this stream were low and heavily wooded. In this vicinity is found the timber for the junk masts with which they are furnished on their annual visit to Pontianak. They bring old cedar masts which, on account of the character of the wood, they part with to considerable advantage in the Chinese campong. They then furnish their vessels with new masts from the timber of this island which on their return to China they sell at a handsome profit.

We found Dyak kampongs situated along the stream and on a small lake in which it takes its rise. The principal part of the dwellings are built upon the brow of a hill that rises abruptly from the water's edge, and so concealed by fruit and forest trees that they were scarcely perceptible from the boat when we landed. We were agreeably surprised in not witnessing that poverty and degradation which we had anticipated. The houses were much better than we expected to find them, and marks of industry were everywhere visible, which are looked for in vain in Malay villages. We ascended first to the house of the Tamungong, or head man of these kampongs. This man according to his own statement was once guilty of the practice of cutting off heads; but has long since laid it aside, never, we hope, to take it up again. When spoken on the subject of the instruction of Dyak children, he seemed pleased with the idea. He is considered rich for a Dyak, his property being valued at between two and three thousand rupees. His house accordingly we found rather spacious, but built after the true Dyak style. The general mode of building is this; all the houses or nearly all in a kampong are erected on posts of the same height, generally about 10 or 12 feet, and are all joined together under one roof with only slight partitions to separate the families. Each door marks a household; hence results the mode of reckoning the population, not by so many houses, by so many lawangs or pintus. The roof is commonly of bark, sometimes of kajang; the sides of bark; from the roof to the floor generally sloping inwards; and the floor of poles, as the Malay hall before described. The windows are in the roofs of the houses, a portion of which is raised by poles, to a horizontal position for the admission of light and air and for the emission of smoke. In some of the small single houses that stand in the paddy fields these apertures occupy nearly half the roof. The fireplaces are in the houses, under or between the windows. Before the houses and on a level with the floor, and resembling it, is a wide open platform, generally the whole length of the village, on which they walk dry and thrash their rice &c. They ascend to their houses by notched timbers, laid in a slanting position or by rude ladders formed of round poles lashed together by rattans. Under their houses they keep their swine and poultry; but the

latter often seem quite at home above the floor. The number of lawangs in these kampongs is one hundred and twenty; and the whole population does not fall much short of six hundred. The asil or tax paid by these kampongs is two rupees each lawang to the Pangeran; who in addition to this considers that he has a claim upon their services for a portion of their time. They accordingly assist him in cultivating some paddy ground, and in erecting houses when they are required. The time not employed directly in the service of the Pangeran is spent in the cultivation of rice, collecting rattans, &c. which articles they may sell to whom they please—privileges granted to few if any other Dyaks under Malay chiefs. All the Dyaks of Sugalam have long since abandoned the cruel practice of cutting off heads, and seem in some degree convinced of the evil of the practice. They have also lost their own language and speak nothing but Malay. The number of swine seen under their dwellings afforded ocular demonstration that they have but little or any desire to become Mahomedans. Their love for the flesh of these animals, as the young man who was with us remarked, is a great obstacle in the way of their embracing Islamism, “but, added he, they would perhaps like your religion better.” Judging from the known character of the Pangeran and his connexion with the Dutch Government, we think there would not be any serious difficulty in the way of a missionary labouring for the spiritual benefit of these Dyaks. The smallness of the number, however, might be an objection to his locating there; except he could have access to the Dyaks of Tyan, and those of Balungei and Milion on the south of the Kapuas.

April 1st.—Though we arose very early and were prepared to set out on our way about 4 o'clock, the strict Mahomedan was up before us and engaged in his devotions. Whether this is a constant practice with the Pangeran's household and those around him we did not learn, but rather suspect they arose thus early this morning to show us how devout and what good Mussulmen they were. About 7 o'clock passed a low mountain of conical form, and at 10 passed Milion. Here again is a native fort. A high fence of round timbers set upright encloses an area of probably 200 feet square and within this enclosure are two or three small

buildings. It stands in a somewhat commanding position on the brow of a small hill, at the foot of which, where a small creek falls into the Kapuas, are some ten or twelve Malay houses. At this place and at Balungei, Pangeran Jaya alternately resides, as has been before remarked. The general course of the river today about west—average width nearly half a mile. About 4 o'clock P. M. passed a somewhat rocky shore. Towards evening a long range of hills appeared in front at some distance. But the banks of the river after passing Milion appeared low (bearing evident marks of being inundated during great swells)—heavily wooded, and almost altogether uninhabited.

2nd.—Near six o'clock we left our lodging place, which had been the uninhabited and woody shore far from any human dwelling. The screams of the monkees in the adjoining forest were almost incessant. About 9 o'clock we passed point Suntoh on the right and shortly after a mountain range of the same name. The highest point of this range is probably about 600 feet. Between this and the shore are gold mines worked by about 30 Chinese. At 10 o'clock we passed another mine worked by some ten or fifteen men; and shortly after, on the same side of the river, Samarangkei, a Malay town containing about 40 houses. The town is on the increase, and is more pleasantly situated than any other we have passed since leaving Pontianak. It stands on an elevation; and in front of it, on the opposite side of the river, is the beautiful ridge of Suntoh, mostly covered with primitive forest. About 2 P. M. passed a range of hills on the right with cultivated spots; giving to the distant prospect an air of cheerfulness in our eyes, accustomed as they had been to gaze upon the low dense forest or wooded hills while the few traces of cultivation have been in narrow strips along the shore. During the course of the afternoon passed several mines worked by Chinese, a few being employed in each mine. We saw also some hills under cultivation by the same people. Near evening passed a small creek where there were a few Chinese inhabitants who are also engaged in a mining operation. At half past 6 o'clock we stopped for the night at a place called Rantu Skiang where there are a few Malay and Chinese inhabitants. Here is a gold mine in which ten or twelve Chinaman are employed. There is also a



diamond mine in the vicinity. In the evening both Malays and Chinese came on board our boat and brought with them small presents of rice and dried fish. The Chinese who work these mines, as well as the Malays who superintend them, are exceedingly superstitious. They informed us that for some years past there had been a diminution in the quantity of gold obtained, and said with the utmost apparent credulity that it was owing to the power of some hantu. If these invisible beings became for any reason displeased, the gold they say will lari (run away).

The course of the river to-day has been very winding, the current rapid, but the width not as great as yesterday. The shores have appeared higher than before. Low mountains were visible the whole day, some of them quite near the river. There are a few Dyak kampongs, it is said, scattered among these mountains, but they are small and as usual at some distance from the river.

April 3rd.—Reached Sangau at a few minutes past 11 o'clock A. M. The town is pleasantly situated on the left bank of the river amid a grove of coco and other fruit trees, and presented, as we approached from the opposite shore, quite an imposing appearance in connexion with a large number of trading boats and floating houses which lined the river. We stopped at the Chinese kampong and immediately despatched a messenger to the Panambahan to ask an interview with him, and learn at what time it would be most convenient for him to receive us. He appointed the hour of 4 P. M. for audience, giving as a reason that the heat would then be less intense. In the meantime, Chinese, Dyaks, and Malay children came around the boat to get a view of the strangers, and for other purposes. The Chinese (among whom were two who bore the title of Captain) as in other places questioned us respecting the time we had been coming from Pontianak—what we had brought for trade, whether the wankangs (junks) had arrived at Pontianak from China, &c. &c. The Dyaks, after gratifying their curiosity with a sight of us, asked for tobacco which they prefer to any thing else.

At 2 P. M., although the heat was oppressive, the thermometer standing at 90 of Fahrenheit under the kajang of our boat, we walked through the Malay kampong followed by a number of

men and boys. The houses are raised high and sufficiently ample in their dimensions; but constructed of rude materials and set without the least regard to order, in the wildest confusion imaginable. There were some scattered fruit trees, the intervals between which, and the space around and under the dwellings, were filled up with logs, stumps, and every species of filth; and not the semblance of a road or decent path appeared. By the help of our Malay men, who were skilful guides in this chaotic labyrinth, we wound our way from west to east, sometimes over solid ground, then over old logs, planks and poles laid on mud, &c. If we gained nothing more by this walk, we at least obtained proofs by ocular demonstration of the aversion of the Malays to labour. Wherever we passed there was a general rush of men, women and children to the sides of the way, and to the doors and verandahs of the houses, to see the orang putih: a sight which many of them, particularly the females and children, had probably never before enjoyed.

At the appointed hour, in company with one of the Chinese Captains we called upon the Panambahan at his dwelling, which stands at the upper end of the kampong and is of somewhat imposing appearance. He received us near the door of the hall of audience, returned our salutation in European style, and invited us to take our seats on the floor upon mats which had been spread for us. Having presented our letters from the Resident and Sultan of Pontianak, they were read by his secretary in our presence. The Panambahan seemed little inclined to introduce conversation himself, or to converse when we attempted to start a topic. This we did several times by referring to the contents of the letters we brought, and our wish to ascend the river. But our efforts were ineffectual, for he would only answer our questions in simple affirmatives or negatives. From this embarrassment, however, we were in some measure relieved after some time by some that were present, especially by a younger brother of his and the Secretary, who addressed us and entered into conversation in a somewhat free and familiar manner. The Panambahan throughout the whole interview seemed to be in a state of agitation and embarrassment. When we arose to withdraw, many that were within (for the hall was full) rushed out, and as soon

as they were without, raised a shout which rang through the premises and made it evident that it was difficult for the Panambahan to preserve decorum within and about his dwelling whatever might be his power beyond these limits. After leaving the hall of the Panambahan we called upon Pangeran Parabu, (the Malay officer who owes his appointment to the Dutch and collects their customs in this place), to whom we had a letter of introduction from the Gezaghebler of Tyan. He received us in a friendly manner and invited us to take our seats upon chairs and entered freely into conversation with us. Our interview with him throughout seemed rather in striking contrast to that with the Panambahan. The river Skiam which falls into the Kapuas just above the town of Sangau, the Pangeran informed us, has its source far into the interior where it has a very rocky channel and in one place a high fall of water. It is a winding stream and one of its bends approaches the Landak river, from which there is a footpath across to that town. There is, however, an overland route to Landak more direct requiring not more than three or four days. This path has been variously represented to us; some say it is a good one, others say that the Dyaks have purposely rendered it almost impassable. One thing is certain, that the Chinese do hold communication in this way with Landak and Mandoor.

4th—At 8 o'clock this morning, accompanied by a son of the Pangeran, we set out to visit a rock with inscriptions on the right bank of the Skiam. It is now called Batu Tulis, formerly Batu Sampei, because the chiefs and others in previous years always stopped here in ascending the river. About  $\frac{1}{2}$  of a mile above the mouth of the stream we came to a small rocky glen through which a little rill empties itself into the main stream. Here we stopped and ascended the bank. One of the boatman preceded with his parang, and cutting away the bushes prepared a way for us along the sides of the glen and the rocky bed of the stream; (for the rock has recently been so seldom visited that the path was quite overgrown with bushes.) At the distance of between fifteen and twenty rods from the bank of the Skiam, and at an elevation of some thirty feet above the level of its waters, we reached the spot. We had heard of this inscription at Pontianak, but always

imagined that it was to be found upon some stone or stones belonging to the ruins of some sacred edifice. What was our surprise then to find the letters cut in a solid perpendicular rock about 12 feet in length and 6 feet in height, extending quite across the ravine, over which the water was falling in a limpid cascade. The space covered by the characters is about 4 feet by 2 of the perpendicular surface of the rock. The general opinion here among those who venture one, is that the language is Sanscrit and the inscriptions are the relics of Hindooism. Confirmatory of this opinion, it seems to us, is the fact that in the Spau, another branch of the Kapuas a little farther up, have been found rude images of the sacred cow. A few years since, slabs with inscriptions and the image of a female sculptured in stone, were taken from the vicinity of Sangau and shipped for Batavia, but the vessel was lost on the passage.

On our return from the rock we called again on the Pangeran, who informed us that the Panambahan would permit us to pass up the river. Although we spoke in our late interview of our wish to ascend the Kapuas as far as Sintang, we did not ask formal permission to do so. On subsequent reflection we thought proper to request formally this privilege through the Pangeran; as the people of Sangau several months since declared that no boats from Pontianak should pass the place. By a former treaty with the Dutch, trading boats were permitted to ascend by paying to the authorities for this privilege a sum varying according to the size of the boat and the value of the merchandize, from 20 to 60 sometimes even to 100 rupees. Not satisfied with the revenue thus derived, the authorities now, in the face of the treaty, stop the boats, buy up their cargoes and completely monopolize the trade of the interior. This is so considerable that the Bugis and Malay traders are willing to pay a sum considerably exceeding the former rate of duties, if they will suffer the boats to pass. The Dutch authorities are highly exasperated at this infraction of the treaty, and threaten to send up a gun-boat to enforce compliance. As they are dependant on Pontianak for many articles by them deemed quite indispensable they will undoubtedly yield. It was our intention to have left Sangau to-day, and to have gone a short distance up the river with the hope of spending the Sabbath more

quietly than can be done in this place, but at the house of the Pangeran we found on our return a messenger from the Panambahan with a request (made however in a somewhat peremptory tone) that we would remain until tomorrow, as he wished to send communications by us to Sintang. Thus we were in a measure compelled to remain in the place until Monday morning. After receiving this message we returned to our boat, where we had constant calls for books from Malays and Bugis until 7 o'clock at night. Several small parties of Dyaks from the interior have also visited us, and during all the afternoon we have seen them passing up and down the river in boats. The Chinese as usual have paid us frequent visits.

Sangau, which as before stated stands on the left bank of the Kapuas, contains a population of nearly 3,000 souls, two thirds, perhaps three-fourths, of these are Malays, the remaining fraction chiefly Bugis. Besides these there are some twenty or thirty Dyak slaves, and in the Chinese kampong forty or fifty Chinese. The whole number of Chinese under the Kongse of Sangau, according to the Captains' estimate, is about five hundred. This population is very much scattered. Except those in the kampong in town, they are found in small settlements, not exceeding twenty or thirty in a place, and are almost exclusively engaged in mining.

As respects the number of inhabitants in any Malay town we find it very difficult to obtain an exact estimate. Those whose situation affords the best opportunity for obtaining the requisite information are either unable or unwilling to furnish it. The number of houses in a place are sometimes taken as a standard; but the average number of persons so dwelling varies so much in different towns as to make this, to say the least, a difficult method. If the number of inhabitants of Sangau (for example) were estimated at an average of 5 or 6 to a dwelling (a fair estimate for Pontianak and some other places) we would come at least one half short of the truth. The number of inhabitants at Sangau, however, as well as other places on the river, is far less now, it is said, than when the island was under native rule, and Succadana (now called New Brussels) was in its glory. The character of the inhabitants of Sangau differs little from that of other Malay towns we have visited, except that the male population are, if possible,

more indolent and feel more independant. So great is their indolence and pride that not a foot of land, as far we could see or learn, is cultivated by them. They obtain their subsistence from their Dyak subjects and the trade of the interior. The females however seem more industrious. They manufacture considerable quantities of cloth from yarn brought from Singapore and Batavia, and from the interior, where cotton is cultivated to some extent by the Dyaks. In our walk through the town we saw many looms in operation under their dwellings. The looms are very simple and rude in their construction, and the process of weaving laborious and slow. A hand's breadth is the work of a day, and a single garment requires a month for its completion. The cloth appears good and is of firm texture.

The banks of the river are but a few feet above the present level of the Kapuas, and are sometimes inundated during the rainy season. The Dutch once had a fort on the right bank of the river opposite the Chinese kampong; but no remains of it are now to be seen. Their authority however is still so far acknowledged that their agent Pangeran Parabu exacts a tribute from all boats coming down the river, and all from Pontianak. The soil in the vicinity of the town is a mixture of yellow clay and sand with only a thin layer of black mould on the surface; but judging from the small spots we have seen cultivated by Chinamen, it seems well adopted to the cultivation of sugar cane and several kinds of vegetables, such as the yam, radish, cucumber, egg plant, bean &c. The chief exports from Sangau are gold dust, rice, rattans, bees wax and a species of vegetable oil.

In the district of Sangau, extending several days in every direction, there are three tribes of Dyaks, together numbering 500 lawangs and probably 3,000 souls. Two of these tribes are several days in the interior on the banks of the Skiam. One of these, the Jangkang, is addicted to the horrible practice of cannibalism. Except this and a single tribe on the Eastern coast we have not heard of any other portion of the people who eat human flesh. That the practice prevails to no inconsiderable extent among this tribe there is no longer in our minds the shadow of a doubt. One man with whom we conversed had seen them making their meal on the human frame. They themselves confess it with boasting

and give as a reason for the horrid custom that it makes them courageous. How could we be brave, said one man, if we had never tasted human flesh. They do not eat indiscriminately all parts of the body, but with a most horrid kind of epicurism, feast with the greatest relish upon the tongue, brain, and muscles of the leg. The men of this tribe file down their front teeth to a point like the teeth of a saw. This, while it may fit for the indulgence of their favourite propensity, adds not a little to the ferocious appearance of these man-eaters. The practice of cutting off heads is also their confession and boast. They seem to consider it their greatest glory. An old man of great muscular strength drew his sword and with an exulting smile declared that with it he had decapitated twelve men. When we expressed our abhorrence of the practice and our hope that in future they would live in peace with each other, another old man said; "but if we have a debt we must discharge it." Thus when one head is cut off it creates a debt which, in the opinion of the parties concerned, must not be suffered to remain uncanceled; but the cancelling creates a fresh demand for blood. In this way a kind of running account is kept open in the work of mutual slaughter, never we fear to be settled until the Gospel shall teach them the sublime doctrine of forgiveness and the blessings of peace.

The Dyaks kept as slaves in the town of Sangau are of the Jankang tribe. Some of them were brought from the interior for killing a Malay man, and others for different crimes. When a Dyak murders a Malay here seven men of his tribe are demanded for him, who are disposed of as the Malay chief thinks proper, and are generally killed or enslaved. These Dyak slaves are employed a part of their time in the manufacture of swords of a peculiar form, and other articles in demand by the Dyaks of the interior, which are sold to them by the Malays at a very great profit. They also perform most of the difficult manual labour about the place.

Dreadful havoc has been made among the tribes of Sangau on the North and East within three years past. Whole villages have been entirely cut off. The Sadong, a tribe of Brunai, have destroyed 500 on the Skiam, and the tribes of, and near Sintang, 200. If this destruction of life should continue a few years longer these

tribes must become extinct, except they remove to the vicinity of their Malay masters—to which Dyaks generally are extremely averse—or take better measures for defence than they have hitherto done.

The men of the Jankang tribe are in many respects a noble race. In stature, in the features of the face, and in their well proportioned and muscular limbs, they excel all Dyaks we have yet seen, with one or two individual exceptions.

The Jankang Dyaks and most other tribes go nearly naked, wearing only what the Malay call the *chawat*, a narrow cloth or bark about their loins. On the right side they carry a *tungking*, a small ornamented basket made of rattan. This contains two pieces of ornamented bambu five or six inches in length and about  $1\frac{1}{2}$  in diameter, and a little bark. The bambu tubes hold their quick lime and tobacco, while the *sirih* is wrapt up in the bark. This basket or pouch is fastened to the body by a narrow belt, ornamented with small sea shells. On the left side they carry the *sinda*, a sheathed knife of long slender blade, used for ordinary purposes and for trimming off the ears &c of heads taken in war. On the left side hangs the *lansa* or sword for cutting off heads. Such is the weight of this weapon, the keenness of its edge, and the power and skill of the arm that wields it, that a single stroke generally severs the head, and sometimes the arm from the body. Of those who have their heads covered, some, like the Malays, wear a handkerchief. Others, particularly when going to war, put on a kind of cap made of rattan in which they stick long feathers taken from domestic fowls or the large wild birds of the island. Of ornaments this tribe is very fond. Those who can procure them wear several strings of beads or shells, or both, about their necks. Their estimation of these is generally in the inverse ratio of their size. On the arm, above the elbow, some wear a kind of ring imported from China, about two inches broad, formed of horn, bone, and sometimes of mother o'pearl. They are valued at several rupees each. Others wear rude articles of domestic manufacture cut from wood or cocoanut shells. On their wrists and fingers they wear rings and bracelets of some metal, iron, copper, or gold, according to the ability of their wearer. Their ear pendants are small silver coin, as quarter



and half rupees or circular pieces of tin of the same size. Some of the tribes wear fewer ornaments than the Jangkang and somewhat different; though the passion for ornaments, particularly for beads, seems quite general among them. One tribe of Sangau, the Ribut, wear clothing similar to the Malays, at least when they leave their kampong and visit Sangau for purposes of trade. They are darker in complexion and inferior in strength to the Jangkang.

In the absence of all written language the Dyaks, or some of them at least, have a kind of symbolic mode of communication exceedingly simple. A Malay man sitting on our boat first informed us of it, and appealed in confirmation of what he said to some Dyaks seated on the shore requesting them at the same time to furnish us with a specimen. They immediately took their knives and cut out the forms of two sumpitan arrows,—one somewhat longer than the other. On both notches were cut. These arrows are, if we have been correctly informed, sent round to the different desas of the same tribe to rouse them to war. The notches on the smaller arrow denoting the number of days before the attack is to be made, and those on the larger the number of men demanded from the different villages. They sometimes burn the end of these sticks, and paint the other red, denoting they intend to burn the village and destroy all the inhabitants. They also use sticks of other shapes, and balls for the same purpose.

Monday, April 6th.—The greater part of the Sabbath we passed in a room of the Captain Chinaman, where we hoped to be more free from interruptions than upon our boat. But in this we were mistaken. Our room having no door, Malays and Dyaks crowded in until it seemed quite as public a place as the boat. Some came merely out of curiosity, as the Dyaks, and some for books, who were supplied.

About 5 o'clock this morning left Sangau for Scaddan and Sintang. Having engaged our men at Pontianak to go only as far as Sangau, they absolutely refused to go further unless we procured additional rowers, on account of the greater strength of the current beyond this, and supplied ourselves with weapons of defence. To have procured a new set of boatmen would have been inconvenient perhaps impracticable; or if practicable would

have been attended with much delay and not have relieved us at all from the necessity of which we speak ; for so customary is it for all boats going up the river to take this precaution, that we had not the slightest reason to suppose that if we had obtained new boatmen they would have pleaded for it less strenuously than the others. The alternative therefore seemed to be to comply or return home without seeing any more of the interior. We consented therefore, though reluctantly, and Pangeran Parabu kindly furnished us with three rowers, two in addition to our former number, and one to supply the place of one of the oarsmen from Pontianak who is incapacitated for labour by a recent attack of chills and fever. The Pangeran also furnished us with a small brass swivel weighing 80 or 100 pounds, an old rifle with a broken lock, an old musket, and four Dyak spears. Thus equipped our men were content to proceed cheerfully on the way.

Between two and three hours after leaving Sangau we touched at a Dyak campong called Pengaladi. The number of inhabitants is about two hundred, who, like the Dyaks of Sagalam, have lost their language and speak nothing but Malay ; and what is more, they have become the disciples of the prophet of Mecca. The very appearance of the village seems to indicate this. According to true Malay style it is composed of scattered dwellings surrounded by fruit trees, among which the plantain predominates. But in the conduct and appearance of the inhabitants the most marked change has taken place. Some of them were engaged in their prayers when we arrived. They were as loud and apparently as devout as the Malays. Their new faith has also made a great metamorphosis in their dress. The chawat and beads have given place to the turban and full dress of the Malay. The inhabitants of this village are under the rule of Pangeran Parabu of Sangau. They originally lived further up the river, but on their conversion to Mahomedanism they left their houses and settled in this spot, probably on account of the protection offered by their vicinity to a large town. This event occurred about six years ago. There is another settlement of Dyaks below Sangau of nearly the same size who have become Mussulmen. Other kampongs belonging to Sangau it is said wish to follow their example, but are prevented by their Malay masters who find them less profitable subjects

after than before their conversion. This desire of becoming Mahomedans is decisive evidence that they are greatly oppressed, else their love of pork and other articles prohibited by the Koran would entirely preclude every such desire. In the forenoon passed a mining district and a range of hills on the right which near to their termination were to some extent cultivated. A few Malay houses were also seen on both sides of the river. About noon passed mount Lintang, five or six hundred feet high, and a little before sunset Matan mountain and a river of the same name. Our stopping place again to-night is the woody and uninhabited shore.

7th. At an early hour this morning passed the mouths of two small streams on which the Dyaks who have embraced Islamism above spoken of formerly dwelt. At 8 o'clock passed the mouth of the Manawas, a small river, the termination of the Panambaban's jurisdiction in this direction. On this stream there were once many Dyaks, but they are now but few in number. Between 3 and 4 o'clock P. M. we stopped on the left to visit a rock remarkable as a natural curiosity and still more so on account of the superstitions connected with it. The rock is near the river's bank and almost parallel with it, and behind it rises a small hill. It is several hundred feet in length and about 35 or 40 feet perpendicular height. It has a number of apertures, some nearly on a level with the ground, but most of them nearly on a range at the height of between 4 and 5 feet. They are nearly of the same size, rough, filthy, and scarcely large enough to admit the body of an ordinary sized man. The apertures we were told widen and open into caverns sufficiently large for persons to walk erect in them. These have been peopled by the superstitions of the natives with a kind of beings who have the power of conferring on visitors strength and invulnerability. Deluded by the belief many visit the rock and present offerings. We saw in one of the apertures which is appropriated to females the carcase of a fowl, and in another the sirih leaf with its accompaniments prepared for chewing. In front of the rock were scattered in great abundance the remains of small split baskets said to be used in bringing offerings to the place. To favoured individuals who attempt the entrance it is said the rocks open and present a wider passage. The Sultan

of Scaddan has visited the rock frequently for two years with gifts, in consequence of which he is said, and no doubt believed by many Malays, to be invulnerable. So silly and childish are the notions to which this superstitious people yield their ready credence. This rock is called Batu Tapa. Soon after we left this place we were overtaken with a heavy rain, and about 5 o'clock reached Scaddan. Immediately upon our arrival we dispatched a man to ascertain at what time it would be convenient to have an interview with his majesty the Sultan. But the latter had been previously informed of the approach of strangers, and our messenger soon returned with a number of men who had their orders to bring our boat nearly in front of the palace, and who informed us that at 8 o'clock the following morning their master would be ready to receive us. Between 6 and 7 o'clock in the evening, however, one of the Sultan's men came and gave us notice that his majesty would soon visit us in our boat. This we had not anticipated. In a few minutes he came in a small boat of his own, accompanied by his son, an interesting youth of about 11 or 12 years, and several attendants. In his hand he held a long spear and his son carried in his hand a small sword, or dagger. He immediately addressed us in quite a familiar manner, and came on board our boat without ceremony or dignity of deportment. We soon discovered that he was quite intoxicated; but this did not much surprise us as we had previously been told that he drank spirituous liquors to excess. His garments were of the richest materials, but he is very filthy in his habits and appearance. He chewed penang and sirih with the accompaniments to such excess that the saliva ran almost in streams from his mouth. In a word he has sunk the gravity and dignity of the sovereign in the low and vulgar habits of the common drunkard. His familiarity was intrusive, and his conversation either offensive, or filled with obscenity and low wit, at every fresh sally of which his attendants, as most probably in duty bound, laughed obstreperously. He seemed to be quite suspicious of us and put such questions to us respecting the regulations of the Dutch government as we were unable to answer. He appointed an interview in the morning, but requested us to remain until sent for.

8th. Early this morning the Sultan sent us some fowls and a

quantity of rice as a present. Soon after the Captain Chinaman called who informed us that the Scaddan Chinese amount to only between one and two hundred. A little after 8 o'clock the Sultan sent for us. His palace is a spacious building surrounded by a high enclosure. On one side of the hall in which we found him sitting were hanging large Dyak shields; and a kind of large frame work over our heads supported a large number of muskets and spears. When we entered he gave us his tabik but did not rise to receive us. We shook hands with him as he sat, and after pulling off our shoes seated ourselves before him on mats. His conversation was more chaste and rational than the preceding evening, but his appearance indicated that he felt the effects of his bachanalian revel. Some of his children were present, of which he has no less than seventeen, although his age does not probably exceed thirty. The number of his wives and concubines exceeds twenty. He boldly advocates polygamy, and we took the liberty of giving him plainly our opinion on the subject. The entertainment he gave us, was what is called here bubur kachang, made of jilib, a Dyak grain before described. This was brought in bowls ready sweetened with native sugar, and set before us and several of the attendants. He inquired also of one of our boatmen present where his companions were as he was desirous of entertaining them all in the same way. For drink, or rather for rinsing the mouths of the sirih chewers, water was brought in decanters without cups or glasses. We could not get any information from him respecting the population, either Malay or Dyaks, under him. We informed him of our design in visiting this and other places on the river, and asked him whether he has willing that a missionary or missionaries should be located at Scaddan. He immediately replied in the affirmative. Indeed from what we have learned of his character from others it is probable that if a missionary could gain his favour, fewer difficulties would be found in labouring for the benefit of both Malays and Dyaks than in many other places. He engaged us strongly to call on him on our return from Sintang, and promised to procure some Dyak weapons and clothing for us.

Our interview with the Sultan being closed we walked through the kampong, which extends along the west bank of the river

Scaddan from its mouth to the distance of half a mile or more. The houses are much scattered, and, as at Sangau, we found it difficult at times, for want of any thing like a decent path, to make our way through. The number of houses is about 70 or 80 and the whole population about 800. The Scaddan is a stream of about 100 yards wide, and where it falls into the Kapuas its course is from the South East to N. West; but the course lies nearly South and is said to be very rocky. In this way lies a path to Matan. In passing through Scaddan the sound of the loom was every where heard as at Sangau.

Gold-dust, rice, rattans, and wax in small quantities are exported annually from Scaddan, but a greater quantity of minyak tangkawang (tangkawang oil) than from any other place in the interior. This oil is obtained from the nut of the tangkawang tree, which produces only once in two or three years. There are said to be ten species of the nut, each having a different name from the others, and are of various sizes, from that of a common orange to that of the duku. The kernel is covered with a hard shell to separate which it is necessary to immerse them in water for three or four days. After the separation they are exposed to the sun for about the same number of days until the oil beings to exude, when they are pounded in a mortar and then boiled in water for some time; after which the oil is expressed while hot. This oil has nearly the consistence and something of the appearance of tallow, but generally yellower. It is found in the markets in rolls from one inch and a half to 3 inches in diameter. It is used in the interior almost exclusively for light and culinary purposes. It sells at the rate of from 10 to 12 Rupees per picul.

Left Scaddan at 10 A. M. and proceeded up the river. Before noon a few Malay and Chinese habitations were seen. Until 3 o'clock continued to meet the river craft consisting of bandongs (covered trading boats), rafts and sampans. Our first stopping place was at a dwelling inhabited by some ten or twelve Dyaks who had embraced Mahomedanism. The ears of some of the men still exhibited the perforations made by them to suspend ornaments, of which in their native state they seem so fond. One of the men had his teeth filed down, resembling those of a saw, as the Jankong tribe; and another had a tattooed figure upon his

arm. This we were told is practised by some of the Dyaks, particularly by the Baju tribe of Banjarmassing to a large extent. They sometimes cover their entire bodies with figure of this kind. Having punctured the skin they use the gum of a certain tree which combining with their blood forms a dark and indelible dye. The occupation of these men is the manufacture of iron weapons and ornamental rings for their Dyak brethren of the interior beyond Sintang from whence they originally came.

Leaving this place, near evening we reached Sungei Ayak, a small stream which falls into the Kapuas on the left; and a little after a Chinese settlement which bears the same name. Just before we reached this place, mountains higher than any we had before seen on the island were visible in the far distance to the south. In the evening visited the three principal Chinamen in the place, the Capati, Captain and Captain Tomunggong. With each of these and at some other places in the kampong, left some Chinese tracts and then returned to our boat.

9th.—Early this morning visited two of the nearest gold mines. The mines in the vicinity of this place are the richest and most extensive of any yet discovered on the river, and the gold taken from them commands a more ready sale than any other obtained in the residency of Pontianak. About an hour's walk brought us to the farther of the two. Our way lay over undulating open grounds and through forests. The soil is a light sand intermingled with white pebbles. When we reached the mine we found in the neighbourhood a few dwellings of the miners, and in the centre the dwelling of the overseer of the mines, which also serves as a place for the transaction of all the business connected with the mines. There we rested awhile and left a few tracts to be given to the men when the labours of the day were ended.

On our departure we noticed that this building was prepared for defence, being surrounded by a high fence, inside of which was a breast-work and port holes for small guns; while in the portico of the building on an eminence there is also a small watch tower. After near half an hour's walk we came to the other mine, but as the men were absent taking their morning meal we merely passed through it. The excavations here are larger than at the other and the number of men employed near thirty. The ground worked in

these mines differs somewhat ; in the one case it is a yellow, and in the other a white admixture of clay and sand. It is said the gold when first taken up generally resembles the soil in which it is found, and is not often perceptible until washed. The region of the gold in the three mines is from 15 to 30 feet from the surface. The process of working is something like this. A stream of rapidly running water is led along the foot of the bank into which the superincumbent earth is thrown and carried away by the stream. The earth containing the gold is then taken and piled up, and once in three or four months the gold separated, or lifted as the Chinese say. This is done by throwing the earth containing the gold in a ditch, planked for the purpose, about two feet wide and one and a half deep ; and a stream of water turned on. When it is thrown in, it is stirred with spatulas or hoes and by the force of the water the earth and sand are carried away while the gold and pebbles remain. After the water is turned off, the gold is separated from the pebbles by washing in large trays a little inclined, called dulangs. The particles of gold are generally so small as to agree very well with the name given them—sometimes however solid lumps weighing from one to two or three ounces are found. The stratum of earth containing the gold is generally not very deep. In the first mine we visited it is not over four feet. We have endeavoured to ascertain the quantity of gold taken yearly from these mines but have not obtained anything satisfactory. We hear, however, that the smaller of these pays to the Sultan of Scaddan ten bunkals of gold a year, for the privilege of working, and the larger 15 bunkals to a Pangeran of Scaddan. The Sultan of Scaddan professes to exercise a kind of jurisdiction over this place. His younger brother called Abang Israel has his residence on the right side of the river opposite the Chinese kampong, where there is a Malay village containing 80 or 100 inhabitants. The whole number of Chinese in the district of Sungei Ayak is said to be about five hundred. At 8 o'clock returned to our boat and after receiving some small presents from the different Captains proceeded on our way. During the forenoon saw a few Malay and Dyak dwellings on the banks of the river. At the distance of 8 or 10 miles from Sungei Ayak passed two gold mines with 40 or 50 workmen. At  $\frac{1}{2}$  past 4 p. m. we



passed Spau, a small Malay kampong on the right shore of the Kapuas at the mouth of a small river of the same name. This is the residence of a Pangeran, a brother of the Rajah of Sintang. On the Spau there are several desas of Dyaks, containing 1,000 or more souls, who cultivate cotton as well as rice and vegetables. Some distance into the interior, as before mentioned, there are said to be some images of animals of the cow species, cut from the solid rock, but when or by whom it was done none can tell. There is also an island some distance from the mouth of the river which produces several hundred gantangs of salt annually. For a short distance beyond Spau, the Kapuas is very rapid and the eddies numerous, which is owing probably to the short bends and rocky bottom. The banks of the river very low during the day and no hills of any considerable size visible.

10th.—Last night a little after sun-set, we passed the mouth of the river Balitang, on which, a short distance into the interior, is a small Malay settlement and the residence of a petty rajah of Sintang, Ratu Bagus. On this river there are also some Dyaks, but they are less numerous than those on the Spau. Between 9 and 10 o'clock fastened our boat to a tree projecting into the river, far distant from any human habitation. This we were led to suppose was the place to apprehend an attack from orang jahat, if there were any on the river. But our boatmen, although unwilling to leave Sangau without weapons to defend us from nightly attacks, soon fell asleep without taking any precautions for safety. This morning was cloudy, and rain fell until the afternoon. Excepting a few small huts, principally on the right shore, the banks of the river during the forenoon were wild and uninhabited. After 2 P. M., the number of small habitations rather increased. The river to-day less winding than before, and the average breadth nearly a quarter of a mile. No mountains or hills in any direction visible.

At 10 o'clock we arrived at the Chinese kampong on the right bank of the river nearly opposite the town of Sintang—several Chinese soon came to our boat, although it was a late hour, and put to us similar questions to those put by their countrymen at the other places on the river. They also soon conveyed intelligence to the Malay Rajahs of the arrival of white men. One of these

named Pangeran Adapati immediately dispatched a man to ascertain whether we were Dutch or English—from whence we had come—our object in coming, &c. After we had answered the questions of the messenger, we inquired of him the customs of the place, and when he thought it would be convenient for the Pangeran to have us call upon him. To the latter question he replied, that he would inform the Pangeran of our wish and bring us an answer in the morning.

11th.—The man who came to us last night came again early this morning with the compliments of the Pangeran and informed us that a boat would be sent when the preparations to receive us were completed. Between 8 and 9 o'clock we called upon the Captain Chinaman and were received with the usual Chinese hospitality. A crowd of Chinese and natives were soon collected around, and with no other apparent design than of seeing us, asking questions, and hearing what we had to say. About the middle of the afternoon, the Pangeran's boat came for us and conveyed us to his residence. As we passed from the water's edge to the hall, on an elevated plank walk, a salute of five guns was fired, and a number of natives, men and boys, in uncouth dresses and wearing masks, presented themselves and played off all manner of fantastic tricks near the hall alongside of the walk, all of which was done, they said, to do us honor. The hall and dwelling of the Pangeran were somewhat capacious, but like all native dwellings in this part of the world rude in the construction. We were met by the Pangeran at the door and were conducted to the farther end of the hall, which was long and dark, and took our seats on mats on the floor in front of the Pangeran and three of his brother Rajahs. The hall, as most others we have seen, is a kind of armoury—Dyak shields and other weapons were suspended on the walls, and over our heads were perhaps 50 or more old muskets, which judging from their appearance were manufactured at least two centuries ago. We presented our letter from the Gezaghebber of Tyan and the chops of the Sultan of Pontianak, the Panambahan and Pangeran Parabu of Sangau, all of which were read in our presence. In the communication from Tyan we were called Orang Bolanda (Dutchmen). As this expression was a mistake as it regards our nationality, and as we

feared that an impression might thus be left upon their minds, that notwithstanding our professions we might in some way be connected with the Government at Pontianak, we took pains to set them right, and again fully informed them respecting our country, our design in ascending the river &c. When informed of many things with regard to the geography of our country—as its position, distance, extent of its population, acts, government, &c, they listened to us as to those who brought certain strange things to their ears. And how could it be otherwise as many of them cannot read; and if they could, what information would they gather from their books. Little also is the information they gain from travel, for multitudes here, princes as well as their subjects, live and die without ever having seen the mouth of the river on whose banks they were born and have passed their lives. We attempted to gain from these Rajahs some information respecting the Dyak population within their jurisdiction, but failed. They profess themselves utterly ignorant of the number, and say how is it possible to count them. There is reason to believe, however, that it is disinclination rather than ignorance that lies in the way of obtaining from them what we sought. Soon after we entered, tea, rice, cakes, and confectionaries were brought and placed before us and a considerable number of others. As we were leaving the hall of the Pangeran, five cannon were fired, as when we entered. We then returned to our boat, and a little before sun-set walked through the kampong. We counted, in passing through, 90 houses besides 30 or 40 built upon rafts, and about 20 east of the Kapuas. The banks are from 7 to 10 feet above the level of the water at present, but are sometimes inundated during heavy swells. The structure of the houses is much the same as at Sangau and Scaddan but rather inferior in appearance, and there seems very little attention given to keep them in repair. They are generally covered with shingles which are tied on with rattan instead of being held on with pins. The sides are generally of bark or bambu and sometimes of hewn boards. Of sawn boards they know nothing, at least there are none used in the construction of their buildings. The average number of persons to a dwelling is large, perhaps ten. The male population are extremely indolent, more so, if possible, than at the other

places on the river. One evidence of this is that a thick forest is suffered to remain from year to year, to within a few yards of the kampong. The females as at Sangau and Scaddan manufacture considerable quantities of cloth for domestic use.

The whole Chinese population connected with Sintang is according to the Captain's estimate 120 or 130. The mines in this vicinity do not produce much gold; much less, it is said, than formerly. The number of miners therefore is few, from four to ten in a single mine, for the privilege of working which they pay to the Rajahs from one to three bunkals of gold per year. On the same side of the river with the Chinese kampong, a little higher up the stream, in a commanding situation, the Dutch formerly had a fort. No traces of the fortifications remain except the trenches, which are dry. The first attempt by them to form a military establishment here, if we have been correctly informed, was about twenty years ago. But on account of the difficulty and expense attending it, in a few years it was abandoned. In 1833 the then Resident of Pontianak, however, visited the place with a small force for the purpose of repairing the fort and re-establishing the Dutch authority on a firm footing. But owing to a misunderstanding with the native chiefs he rather hastily left the place, since which time their authority has not been acknowledged. Still their power is feared; and it is owing to this fact probably and because they suspected we might be deputed by the Government to spy out the land, that the Rajahs could not rest in quiet upon their pillows last night until a messenger had been dispatched, almost at midnight, to learn who the white strangers were and what they sought.

During the time we were in our boat to-day, we had constant calls from Malays and Chinese, and those of them who could read were supplied with books. We also saw several Dyaks who came in small boats with earthenware of their own manufacture to sell, such as furnaces and vessels for cooking rice; also vegetables, kajang &c. There are two tribes of Dyaks in this region who raise cotton, the Sabwang on the Spau before mentioned, and the Katwangan on the Kapuas. Hence comes the material which gives employment to the numerous looms of which we have already spoken.

From Sintang only a solitary mountain is visible. It is about half a day distant, in an Easterly direction, and of conical form. Its sides seem precipitous and rocky, and its summit is probably about 2,000 feet above the level of the river. It is called Gunong Klam or the dark mountain, probably because its summit and sides are frequently enveloped in mists and clouds. From the top there is a large cavern or opening of unknown depth. Cords 1,200 feet in length have been let down without reaching any bottom. From this cavern edible birds nests in small quantities are yearly obtained, and sold in Pontianak at above two hundred rupees per picul. To obtain these nests men are let down with ropes; and after they are taken the places are scraped and oiled, in order as is said, that the birds may build there again. About the foot of this mountain the Dyaks are quite numerous, there being, according to the estimate of an old man who visited us, a thousand men capable of bearing arms.

Monday, 13th. The greater part of the Sabbath was passed in our boat, and as we had anticipated we were constantly surrounded by visitors, either Malay, Chinese, or Dyaks, or all at the same time. In the morning, the man who was first sent to us on our arrival, a Bugis, and to whom we are much indebted for his kindness and attention, called on us with the tabik of two of the Pangerans, Anum and Kuning, saying that they would be pleased to have us call on them that day. We informed him that it was the Sabbath, and on that day we were not in the habit of visiting or attending to our ordinary avocations, and asked therefore to be excused until the next day. The man replied it was according to our pleasure. About 11 o'clock Pangeran Adapati called on us. He was much taken with a pocket compass and thermometer we had with us, especially the former, and expressed a wish to have it. We told him it was the only one we had with us, and that we had daily use for it and therefore could not part with it. We promised him however that we would endeavour to procure one for him from our country and send it to him. And here we would suggest the importance of missionaries to this part of the world, especially to this island, being supplied to some extent with such articles as pen-knives, silver pencil-cases, blank books, perfumed soap, and those above named, purposely for presents, as

presents of some kind are always expected. We know of no articles which at so low a price would be so acceptable. The missionary then too would know that he was presenting what is intrinsically valuable and might be very useful; which cannot be said with equal propriety of tobacco, and other articles sometimes presented. We sent a copy of the Scriptures in Malay to Pangeran Adapati on Saturday, but yesterday when he visited us he brought it back saying he could not understand the contents and therefore it was of no use to him. But whether his inability to understand it and perhaps to read it was the chief reason for not keeping it, we think rather questionable.

This morning, in company with the Bugis man before mentioned, who offered to be our guide, we took a short excursion up the Kapuas and Melawi rivers. The banks of each, as far as we ascended, are lined with fruit trees, but this is not the season of fruit. The town of Sintang stands on the left bank at the confluence of these rivers, which are both about two hundred yards wide, but the Kapuas appears to have the greater volume of water. The course of the Kapuas near Sintang is from the east or a little north of east and that of the Melawi from the south. On both these rivers for 7 or 8 days into the interior, according to native travelling, there are settlements containing in all upwards of 4,000 souls. The most important places on the Kapuas are Silat about two days from Sintang; Salimbau\* one day or a little more from Silat, and Bunut the farthest into the interior 3 or 4 days from Salimbau. Silat has a population of about 400 Malays, Salimbau and Bunut about 1,000 each. In the district of Salimbau is the Manuh tribe of Dyaks, about 100 of whom have become Mahomedans. This tribe and a few others believe in transmigration. They say that their ancestors have become orang hutan and deer, and that they themselves will become such after death.

About 4 days from Sintang, on the left of the Kapuas and some distance from it, is a large lake called Danau Malayu which according to the natives is two or three days in circumference. The waters are said to be transparent and stored with numerous fish. There are several islands in the lake, two of which are consider-

\* From the report of the Dutch Commissioner (1855) coal-beds exist at Salimbau, means for working which are being taken by the Dutch government.

ably larger than the rest. One of these is called Vander Capellen and the other Tobias. There are several small lakes near the large one in which fish are abundant as well as in the streams in that region. The head hunting Dyaks of Sarebas and other places prowl around these lakes and frequently surprise solitary and small parties of fishermen. The large lake is the source of a small river called the Tawang\* which falls into the Kapuas. The river Banting, a branch of the Batang Lupar, has its source not far from the Danau Malayu. The Batang Lupar falls into the sea north of Sarebas within the limits of Brunai. By these rivers some trade is carried on from Sintang and other places in the interior with Singapore. The distance by land between the Banting and Tawang rivers is 3 or 4 days with burdens, but is frequently travelled in one day without. Last year a quantity of fire arms was brought that way from Singapore.

On the Malawi the Malay population is less than on the Kapuas; the whole, probably, not exceeding 1,500. The names of their settlements are Dedai, Gadis, Bilimbing, Pinu, Nongeilah and Beigalah. These settlements and others, we have been informed, are on or near the mouths of streams, on the banks of which are numerous Dyaks. The most common rout from Sintang to Banjarmasin is by ascending the Melawi some distance, then one of its branches, the Pinu, on the right, from which there is a path by land of only a few hours to the Kotaringan or one of its branches, and from the mouth of the Kotaringan by sea to Banjarmasin. There are more direct routes on the left of the Melawi, but these are seldom travelled by Malays on account of the difficulty of crossing the intervening mountains, and the fear of some of the Dyak tribes in that region.

Both on the Kapuas and Melawi rivers the Dyaks are said to be numerous by all with whom we have conversed on the subject and who had opportunities of knowing. By some they are estimated at from 70 to 80,000; by others much beyond that number. Under the Rajas of Sintang, whose authority extends but a few days, there are at the lowest estimate between 15 and

\* By this river, which is stated to form the principal means of communication with the lakes, Mr Prins, the Dutch Commissioner, entered the Seriang in the steamer *Oonrust* in 1855.

20,000. The number under other Malay chiefs farther into the interior is probably about the same. Pangeran Adi who resides at Bunut, has it is said 10,000 under his jurisdiction. Besides these there are within 7 or 8 days of Sintang several other tribes or parts of tribes still independant.

The Kapuas beyond Sintang to Bunut is said to be a sluggish stream without falls or rapids and navigable for large boats, but beyond that place rapid and dangerous of navigation. The Kyan or Kayan tribe of Dyaks inhabit the region beyond Bunut, and is said to be one of the largest and most powerful on the island. They excel in the manufacture of steel. Some of their swords we saw, which were of superior polish and manifested much skill in the workmanship. With their best tempered swords we were informed they can cut in two, with one stroke, rods of iron more than half an inch in diameter. Within the bounds of this tribe it is said the explorer Muller was murdered. The particulars of his death as related to us are as follows :—In descending one of the branches of the Kapuas from the East his guides advised his men to fasten their weapons to the boat, so that if it should capsize in passing over the rapids they would not lose them. Not suspecting any thing they fastened their arms as directed, and while descending in the middle of the stream, the men who had the management of the boat upset it, and Muller and his men were precipitated into the water, and at the same moment armed natives in two boats near fell upon them and massacred the whole company, 17 or 18 in number, except two, a native soldier and a Papuan, who escaped and related the manner of their death.

It is asserted by some who have written respecting this island that the Kapuas takes its rise in a very large lake near the centre of the island, and which is said also to be the source of the Banjarmasin and other large rivers which fall into the sea on the East and North. Thus also some geographers represent it. We have made many inquiries respecting the source of the Kapuas and have seen and conversed with many who had traded up the river and been much among the Dyaks, but we saw no one who had followed the stream to its source. It is probable that it is at least 150 miles in a direct line beyond Sintang.



The chief articles of export from Sintang are rice, rattans and bees wax. Of other articles such as damar, colouring wood, and tangkawang oil, the quantities are small. The principal imports are cloths, salt, iron and tobacco.

The Rajas of Sintang are 7 in number, of nearly equal authority, and share between them the profits accruing from their Dyak subjects. They do not raise from them a revenue by direct and regular taxation, as in some other places on the river and in other parts of the island. It would be far better for the poor Dyaks were this the case, for the system adopted in its stead appears to us far more oppressive (although the Dyaks themselves prefer it) than a heavy annual tax would be, as it is almost impossible to set limits to the extortion practised under it. The system is called the sarah. By this the Dyaks agree with the Rajas to purchase all the articles they need from them at a certain rate of exchange, and thus they generally pay several times the original cost of the articles; for example, for a small price of iron, which cost in Pontianak five wangs (50 Java pice) they give in exchange 40 gantangs of rice, worth from 9 to 12 pice per gantang in Sintang. For a piece of blue or black cotton cloth sold in Pontianak for from  $4\frac{1}{2}$  to 6 rupees, they give 400 gantangs of rice, and other articles in proportion. Besides the sarah, what is called the pupu is demanded, that is, when a prince or one of his family dies or is married, or erects a dwelling, a small sum of money or its equivalent in rice, wax, rattan, or some other article, is demanded of each lawang to defray the expences. The pupu system we believe is quite general.

Soon after our return from our excursion up the river this morning, Pangeran Anum sent his boat to convey us to his residence. The interim passed off much as at the house of his brother Adapati on Saturday. We found him however living in apparently better style, surrounded by a large train of domestics. This man has visited the Danau Malayu and confirmed the statements we had before heard of it. From the house of Pangeran Anum we went to that of Pangeran Kuning, which is situated on the opposite side of the Kapuas a short distance beyond the kampong. Its situation is quite high and romantic amid a beautiful grove of fruit trees. The ground rising very abruptly from the river's

bank, we ascended by flights of rough stairs to his dwelling, which we found spacious and exhibiting rather more taste than any other dwelling we have entered in the place. We were received again with such noisy honours as almost deafened us. The hall in which we were received was large and along one side of which there was again a display of Dyak shields, and nearly in the centre overhead a number of muskets and spears. We were asked to our seats on benches at a table. This was quite a relief to our limbs wearied as they had been by sitting in native style. We were struck with the manner (whether designed or not we cannot tell) in which the colour corresponding to his name predominated about his person and dwelling, even the table was covered with a yellow cloth. Noticing that we observed the pranks of an orang hutan in the yard before his dwelling he made us a present of it. This animal, as we have learned from many sources, is quite abundant in the forests on the north side of the river, while none are found on the south. A curious fact.

In the afternoon we made our parting calls upon the Pangerans in the kampong as we hope to leave this evening. We have inquired of these chiefs if they were willing that missionaries should come and settle among them, and they have uniformly expressed their willingness, especially if one were a physician. As a station for a Dyak mission we think Sintang presents claims far beyond any other place on the Kapuas, and perhaps than any other place on the western part of the island; and we trust that in the good Providence of God it will not be long before it is occupied. But men are needed for such a station of no ordinary share of faith, patience, and decision of character, for they would no doubt meet with much, especially at first, to put all these to the severest test.

Pangeran Adapati gave us on leaving, several Dyak weapons. His reserve as well as that of Pangeran Anum seemed to be all laid aside and they conversed freely on various subjects. The contrast in their manner and conversation between this and our first interview was striking. Towards evening Pangeran Kuning sent to us a request that he would remain until to-morrow as he wished to call upon us in the morning. Most dilatory themselves and devoid of punctuality in their business and engagements,

they seem to think all others like themselves, and cannot believe that we will start at the time appointed. Perhaps too, they think that it is a part of their prerogative to ask such favours as this. We sent back word, however, to the Pangeran, that we would be happy to see him, but as all our arrangements were made for starting we could not remain until to-morrow. He came, therefore in the evening between 7 and 8 o'clock, and conversed quite freely for about three quarters of an hour when he left. Very soon after, a heavy storm of rain and wind came on and continued for several hours, during which time we were preparing medicines for those who requested us to leave some with them. As soon as the storm had ceased we left Sintang.

14th.—Our progress down the river we find to be very different from that of ascending. Having left Sintang about midnight, and rowing and floating by turns, at 8 o'clock this morning reached the place where we stopped the night previous to that of our arrival at Sintang. At 10 o'clock passed the mouth of the Balitang and at 11 Spau.

At one o'clock P. M. we arrived at Sungei Ayah where we made a stay of an hour. Between 5 and 6 we reached Scaddan. Shortly after our arrival the Sultan with his father and four of his sons came to our boat. He was even more intoxicated than before, his conduct more disgusting and his language more offensive. He forcibly reminded us of many profligate drunkards we have seen in our native land. He ordered our cook in a peremptory manner to prepare tea and when it was brought helped himself and his children to it and its accompaniments without ceremony. While he was sitting the Moslem's hour for evening prayer was sounded from the mosque on shore. He immediately said he must go, for if he did not God would be angry with him—as if he thought that mere punctuality in presenting himself at the stated periods would make the sacrifice of a reeling drunkard acceptable to God. This however is in perfect keeping with Mahommedanism. We then endeavoured to give him some idea of acceptable worship, telling him that Jehovah looked more at the temper and spirit of the worshippers than at the strict observance of time, seasons &c. But the Sultan, notwithstanding his intemperance and the arbitrary sway he exercises, is said to oppress his subjects

far less than most other Malay chiefs. The comparative mildness of his government is a frequent topic of conversation among the natives. He urged us strongly to remain in Scaddan until morning and said if we remained he would give us whatever we asked for in the morning; but not altogether trusting to the promise of one intoxicated, and being desirous of reaching home as soon as possible, we, notwithstanding his importunity, proceeded on our way as soon as he left for the mosque.

15.—Our men having rowed the great part of the night, our progress was such that when we awoke we found ourselves near Sangau. At 8 o'clock reached there. Soon after our arrival Pangeran Paraban come on board and inquired very particularly respecting our reception at Sintang, and about other matters. We then in company with the Pangeran called on the Panambahan whom we found with few attendants. At 2 P. M. left for Tyan.

16th.—This morning about 5 o'clock arrived at Tyan and at 8 called on the Gezaghebber. He informed us that the prospect of an open war between the Dyaks of Tyan and Landak is greater than when we were on our way up the river. Our interview with the Gezaghebber being concluded we visited the kampong of Tyan, North of the river. The number of houses, among which is that of the Panambahan, is between 30 and 40. The kampong is situated on both sides of the river Tyan, which is about 30 or 40 yards wide, and by it lies the road across to Landak as before stated. The Panambahan and nearly the whole adult male population were absent in the interior preparing for expected hostilities. The Dyaks of Landak are said to be assembled to the number of 4,000, while the Panambahan of Tyan has less than 2,000 men to oppose them. At 10 A. M. proceeded on our way.

Our boatmen fearing if they fell asleep we might be carried down the Punggur towards the sea, remained awake and continued rowing hard until between 3 and 4 o'clock when we passed Sukalinting. After passing this place we floated until after sunrise. In the afternoon about 2 o'clock we reached Pontianak in health and safety.

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## THE BANDA NUTMEG PLANTATIONS.

By T. OXLEY, Esq., A.B., Senior Surgeon of the Straits Settlements.

THE following paper being written simply for the information of the Straits Planters, does not pretend to any scientific research, nor even to sufficient interest to reward the general reader for the trouble of its perusal.

That small, isolated, yet important cluster of islands, situated in 130 east longitude and 4.30 north latitude, known by the name of the Banda group, consists of three large and seven small islets, many of which are little more than points of rock jutting from the sea. Of these, three are planted with the nutmeg trees, viz., the Great Banda, Banda Neira, and Pulo Aai, a small island about 7 miles south-west of the channel that leads into the harbour, which is formed by Neira and Gunong Api on one side, and the Great Banda on the opposite. On approaching the land these islands are so close together that it is difficult to distinguish them. Gunong Api with its lofty cone arrests the view of the beholder, and the other two islands seem to form a part of its base; so much so, indeed, that we passed the group to the northward and beat about for several hours before we discovered the narrow passage that separates the Great Banda from Neira and Gunong Api. This channel has three entrances, two towards the north and one at the west. There is, besides, a narrow strait between Gunong Api and Neira, but the water is here too shallow for any thing larger than boats. We entered by the eastern side of the north channel, which is divided into two parts by a small islet called Pulo Pisang, upon which a few cocoanut trees are growing. The passage is very narrow, and by no means free from danger, particularly during the south-east monsoon, owing to the violent gusts of wind that rush down from the mountain sides, forming eddies or whirlwinds that embarrass a vessel exceedingly. We entered with a fair breeze, but no sooner did we get past the head of Great Banda than the ship was taken aback, and we were spun twice completely round to the imminent danger of being wrecked. By the regulations of the port, whenever a vessel finds herself in a similar predicament she need only fire a couple of guns, when all the boats in the place are bound to proceed out

and tow her in, but we were ignorant of this excellent regulation, and had not a favourable breeze come to our aid, we must have gone on shore. The distance is short, and about half an hour took us to the anchorage opposite the town, where we let go anchor in 6 fathoms, about 200 yards distance from the shore.

The most striking feature from the anchorage is Gunong Api, presenting its brown bare sides, encrusted with ashes thrown out from the crater, which shew but little evidence of vegetation. On the western side it is quite brown and bare to the water's edge, but on the eastern side there are shrubs and trees for nearly half its height. With the exception of a few huts there are no houses or plantations on this island. On looking towards Great Banda, it seems nothing but jungle and resembles many parts of the Pinang hills; here and there along the shore are seen the neat picturesque cottages of the Parkineers or nutmeg proprietors, but first sight reveals nothing of the marvellous beauties it contains. The small island of Neira contains the Government buildings, the two forts Belgica and Nassau, and the houses of the Resident and principal inhabitants, but here again first impressions are unfavorable. The unroofed and dilapidated houses, the effects of the terrible earthquake of 1852, give it a most desolate appearance, far more than even the absence of all traces of civilization; there is a gloomy stillness about the place, no evidence of traffic, no neat gardens or handsome houses, nothing apparently attractive about it, yet never have I found any spot in the East possessing so many natural charms or such beautiful scenery as these lovely isles contain.

The houses of the inhabitants stretch along the sea-shore and are of one story, the walls being thick and solid and the roofs of attap, as light as possible, to moderate the effects of the earthquakes. Every house is provided with a small bungalow in the rear, to retreat to upon the coming on of these terrible visitations. These bungalows have strong foundation walls, about three feet thick, upon which a light structure is raised, the walls of which are composed generally of the leaf stems of the sago palm. The last severe earthquake of 1852, levelled almost every building in Great Banda and Neira, with all the drying houses of the Parkineers, and the church, leaving but a few houses unroofed,

and these were severely shaken. Since then the inhabitants have been but little disturbed, although an occasional undulation warns them of the insecurity of their *terrá firmâ*. Indeed an undulation of this sort took place whilst we were at Banda, but occurring in the night, it escaped our observation. The severe earthquakes have always a vertical movement. Besides the chance of being buried in the ruins of their houses, the inhabitants have a fair probability of some day sharing the fate of *Herculaneum* and *Pompeii*. The contiguity of *Gunong Api* is truly appalling; only a few hundred yards distant, it raises its head nearly 2,000 feet above them, slumbering at present in a fearful repose, and only giving evidence of the destructive agencies in its bosom by an occasional puff of smoke from its several craters; but placed as it is on the most active part of the Great Volcanic Belt, stretching from *Kamschatka*, through the *Phillipines*, *Celebes*, *Floris*, *Sumbawa*, *Bali*, *Java*, *Sumatra*, and ending in the *Bay of Bengal*, it is ever ready to resume its work of destruction, and will some day or other doubtless do so. But the late dreadful eruption in the *Sangir* islands, north of *Menado*, by which 2,800 lives have been lost, will most likely save *Banda* for a while, the subterranean forces having found a vent at so short a distance from it.

*Neira* would be safe from a current of lava, as it would be received by the Strait that separates it from *Gunong Api*, but an irruption of ashes would at once descend and bury the whole place. The soil and rocks, the former quite black and full of portions of pumice stone, and the latter *Basalt* and *Conglomerate*, sufficiently demonstrate their origin. In some places the *Conglomerate* was in large beds or layers, 8 or 10 feet thick, apparently formed by several distinct eruptions. The *Great Banda* would be safe enough from any ordinary volcanic disturbance, particularly during the prevalence of the south-east monsoon, as the ashes would be carried into the sea, but an eruption such as occurred lately in the islands north of *Menado* would do extensive mischief and from such a visitation *Banda* can never be secure.

#### DESCRIPTION OF THE PARKS OR PLANTATIONS OF BANDA.

There are in all 34 parks, containing 319,804 bearing trees. The total produce from these last year was of nutmegs 4,032

piculs, of mace 1008 ; this gives little more than one catty and a half of spice for each tree per annum, but then a very large proportion of the produce is lost from the following causes ;—much cannot be collected from the height of the trees, and the inaccessible places in which hundreds of them are placed, and many are lost by windfalls. In some places I observed the ground covered with young fruit blown down by the high winds ; in one park there must have been hundreds of thousands strewed on the ground. The large pigeons called Walur feed extensively upon the fruit and eject it after digesting the mace ; besides these, field rats eat the nuts—thus the losses from all these causes are very considerable.

These parks or plantations are private property and can be sold, mortgaged, or bequeathed according to the will of the owner. They are distributed amongst the islands in the following proportions: Great Banda 25 parks, Neira three parks, and Pulo Aai six parks. The Government, however, require all the spice to be delivered to them at a fixed rate, but if this be small, the Parkineers have great privileges. The chief labour is performed by Convicts, furnished by Government, of whom there are 2,500 employed in the plantations. The Government give these men one rupee and a half a month, medicine and medical attendance, gratis, and the Parkineers supply them with rice and two suits of clothes yearly. Rice, again, is sold to the Parkineers at half price, and they can obtain any implements they require or material for building, by indenting on the Government Stores. As there is no indigenous population in Banda, it does not appear to me how the cultivation could be carried on without the assistance of the Government. If the Convicts were withdrawn there would be no persons to collect the fruit ; to look after these convicts, see that the Parkineers treat them well, as also to prevent smuggling, there are 4 overseers and sixteen park rangers in the pay of the Government, and these men are bound to report the state of the parks, the number of the trees that die, the numbers planted, and in fact every thing connected with the produce.

Of the 34 parks, I visited all those on Great Banda and Neira, —that is 28 of them. The description I am about to attempt has reference principally to the parks in Great Banda, but the parks



in Neira have also many beautiful spots, and the view from a steep hill called the Parpenburg, used as a Telegraph station, is magnificent.

The Great Banda forms nearly half a circle; the two ends approaching Neira and Gunong Api form the Strait, the water of which is remarkable for its translucency, the bottom being clearly visible in six or eight fathoms; it is also subject to peculiar shades of color, turning sometimes of a milky hue, but being generally of a beautiful azure; this milky appearance is called the white water and is supposed by the credulous to be the forerunner of sickness and the cause of the nutmeg splitting before maturity. Of this several of the Parkineers most gravely assured me.

The only attempt at cultivation adopted is the cutting close with long knives the ferns or grass below the trees. Short grass where it will grow is permitted to approach the stems, but the denseness of the shade is more favourable to the production of mosses, ferns and lycopodiums than to grass, and there does not appear that tendency to the growth of weeds and underwood that exists so strongly in the Straits, to the great detriment of the Planters. No manure or artificial stimulus is used, the plants deposited abundantly by the pigeons are merely taken up and stuck in wherever a vacancy occurs—therefore no regularity is observed. In some places you see clumps of trees growing together, not more than ten or twelve feet apart, while their tops run up to 50 or 60 feet in height, frequently without a branch for 15 or 20 feet above the ground; all the trees grow under the shade of the canari, and the general appearance at a distance is that of a jungle, like the western hill in Pinang, whilst the precipitous nature of the ground even exceeds the steepest portions of the Pinang hills. It is true the highest portion of Great Banda is little more than 1,500 feet at one end, trending gradually lower towards the west, whilst Pinang is 2,800 feet; but the whole of Great Banda is little more than a mountain ridge, there is no table land; on the top are some undulating plateaux and on either face the ground shelves gradually towards the shore. The island is traversed by several artificial stairs, in some places almost perpendicular. We travelled up and down these in chairs, carried by ten men, and a most giddy and perilous journey it appeared. Persons using

these chairs are obliged to hold fast by the arms, with their feet supported by a cross bar, to prevent themselves falling over the heads of the bearers and being precipitated hundreds of feet perpendicularly; in ascending you have no need to throw back your head to study the stars, you behold the sky by looking straight forward. Now as these stairs are of course made over the most accessible and easy parts of the hills, the steepness of the rest may be imagined. The scenery is most enchanting, the cool shade, the ever-varying prospect, and the entire freedom from underwood, make these parks the most lovely places of rural retreat and fine woodland scenery I have ever witnessed. I thought that could Great Banda be placed within a few hours journey of Singapore, the Counting Houses would not be so sedulously attended as at present; picnics would be the order of the day, and Ladies fair would lose their hearts to enamoured swains, unable to resist the soft influences of those seductive scenes. There being no obstruction, as I have already observed, from underwood, and the lowest branches of the nutmeg trees being far above the level of vision, you can walk about with perfect freedom, and see distinctly for considerable distances according to the undulating nature of the ground. Under your feet is a carpet formed of short grass, mosses, ferns, or soft lycopodiums; down the steep ravines in many places run crystal rills of pure refreshing water, murmuring over rough beds of trachyte rock, and all along the south eastern face you hear the resounding echoes of the Banda Sea as it breaks in high waves upon the iron bound shore, sending its spray for hundreds of yards over the parks, to the no small injury of the nutmeg trees, while the hoarse croak of the Walur or softer coo of a smaller pigeon called Una are not disagreeable adjuncts to the scenery. There are a few wild hogs and deer in the inaccessible parts of the hills, on the tops of which are small natural ponds, where they enjoy themselves in undisturbed repose; there are also some extraordinary birds of the genus *Megapodius* to be found on the island. I discovered two of their nests, and it is absolutely necessary to see one of them to form a conception of the reality. Imagine a mound of earth, five feet in height and twelve in diameter, scraped and put together by a couple of birds no larger than common fowls; in the centre of this heap about three feet

deep they deposit their eggs, where they are hatched; I fancy the old birds are present to scrape away the earth and emancipate the young Megapod at the full period of incubation. I observed a good quantity of dried leaves mixed up with the earth, so that heat must be generated during the decomposition of the leaves, and the eggs are really placed in a sort of hotbed, although nothing can look colder than the damp outside of the heap; the eggs are much sought after and are considered a delicacy. They described them as about the size of a goose's egg; unfortunately the nests I found had been previously plundered, so that I neither obtained the eggs nor saw the birds.

Some of the houses of the Parkineers are comfortable residences, and many are most picturesquely situated. Were I to select one in particular, I would mention Orang Datong, the view from which no pen or pencil could do justice to. The Parkineers themselves are almost all country-born, full of prejudices, indifferent to all improvement and satisfied with whatever it pleases nature to do for them. I must except from this category, a German gentleman of the name of Brandes, who, although only in possession of a park for three years, has already by judicious management doubled his produce. But the nutmeg cannot be said to be cultivated at Banda, it is merely collected, and they have as good a right to be admitted to the English market on the low duty as the long sort from Ceram and Papua,—both are wild, that is, the indigenous productions of their respective localities. This would be only consistent with the reasons afforded for the present discriminative duties, whereby the savages of Papua are protected and encouraged to the detriment of the Straits Planters, and a spurious and inferior article, which from its astringency is even unwholesome, is forced by the folly of legislation, ignorant of facts, into general consumption.

The true nutmeg has occupied its present position in the Banda isles from time immemorial. It was found there by the Portuguese in 1511, and so long as the islands remain above the surface of the sea, so long will they produce the spice, unaided by the hand of man, for the pigeons alone are abundantly sufficient to keep up and reproduce the tree. The nutmeg of Banda is the type of the genus and will for ever maintain a certain superiority,

and all deviations from it must be considered abnormal. I shall, therefore, endeavour to describe some of the differences that exist between the Banda tree, with its produce, and that of the Straits. The first remarkable difference is in their respective heights. The nutmeg tree of the Straits is a mere shrub compared with those of Banda; 50 or 60 feet is no uncommon size, whilst I have seen some that could not have been less than 70 feet high. This is partly caused by the dense shade in which they grow, which draws them up when young, but I observed many groups of trees growing without any other shade than that afforded by their own foliage, and they always appeared to me to be nearly as tall, but better and more robust trees than those less under the influence of light. It appears to me the shading is overdone; at the same time, owing to the strong winds that constantly prevail, the tree needs shelter of some description. The colour of the leaf is a lighter green than those in the Straits, the foliage is less dense and the branches less crowded together. The roots have a strong tendency to run along the surface of the ground, where they can feed upon the rich vegetable mould formed by the constant fall of the nutmeg and canari leaves. The tree as a general rule does not bear fruit before the 8th or 9th year, and is not considered in its prime until about 25 years old; it is said to bear well up to 60 years and even longer. The male tree is much shorter lived than the fruit bearing one, which may account for the few males observable in the Plantations. The Parkineers do not estimate the proportion of males above two per cent, and from all I saw I should not think they much exceeded that proportion; if this be the case we have far too great a number in our Straits Plantations. With respect to the proportion of males and females yielded by a given number of planted seed, the Parkineers say they never get more than 30 per cent of males and seldom so many; this again is a far better outturn than Straits Planters can boast of. The fruit hangs upon longer and more slender stalks than ours, the skin is more free from all blemish, more thin relatively to the fruit, and of more uniform proportion. You neither observe such difference of shape nor such extremes of size; in fact, the fruit, unstimulated by strong manures, preserves more perfectly its normal character, and, both in and out of its covering, is more perfectly spherical, the nut

itself is of greater specific gravity, the albumen more perfectly ruminated and containing a larger quantity of essential oil. There is, however, one curious variety to be found; a few trees, belonging to a widow of the name of Mayer, bear ivory coloured mace. There is no appreciable difference of soil to account for this, and the nuts when planted in any other situation produce mace of the usual red color. The black spot or gangrene of the outer covering exists among the Banda Plantations, but in so slight a degree that they take but little account of it. Dr Brandes, the intelligent Planter to whom I have already alluded, is of opinion that it is caused by an insect depositing its larvæ in the husk, which feed on the saccharine matter of the outer covering, until it bursts, when they make their way into the soft nut itself, and become that small weavel so well known to all Planters. The nuts frequently split before maturity as in the Straits; this is produced by similar causes,—cold damp weather, and sudden changes of temperature. The trees bear more or less every month throughout the year, but there are four months in which the crop is four or five times its usual quantity, these are May, June, September and October. The method of collecting the fruit is far better than that adopted in the Straits. They use neatly made oval baskets of bambu, open for half their length on the upper side with a couple of prongs projecting from the top; these seize the fruit stalk, and by a gentle pull the nut falls into the basket, which is capable of containing three or four nutmegs. Thus the mace is not spoiled or bruised by falling on the ground and there is no searching about the grass for the escaped nut. I have brought some musters of these useful baskets, which can be attached to bambus of the required length and removed at pleasure. Besides a better mode of collecting the nuts, the manner of breaking them when dried is superior to ours. This is done by spreading them on a sort of drumhead and striking them with flat pieces of board. Several are cracked at each stroke, swept off and re-supplied as fast by a man standing alongside. One man in this way will break more nuts without injury than half a dozen men after the Straits fashion. Women and children are used in the collection of the produce, which is brought in twice a day, and the mace removed by large knives by which it is scraped from the base

and, it appears to me, not a little injured by the operation. The plan of removing it by the hand from the apex is decidedly preferable, as the interlacings of the mace are thus freed and the blade better expanded.

#### TREATMENT OF PRODUCE.

The mace is dried in the sun and delivered monthly at the Government godowns; the nuts are smoked in the usual Straits fashion by slow wood fires for three months and delivered quarterly. The mace when received is divided into three qualities and packed in casks containing about 280 lbs; in packing very slight pressure is used, such as a man standing in the cask and treading down the spice as it is filled in.

The nuts when broken are packed in wooden bins, filled up with lime and water to the consistency of mortar, where they are allowed to remain for three months, the bins being carefully closed and marked. At the expiration of three months they are taken out, sorted into three qualities and packed in casks similar to those used for the mace; these casks are all made of the best Java teak and a regular establishment is kept up for their manufacture.

The refuse nuts are ground down to a fine powder and converted into nutmeg soap, by steaming them over large cauldrons for 5 or 6 hours, and compressing the warm mass, packed in bags, between powerful wedges, when a brownish coloured fluid runs out. This on cooling becomes of a saponaceous appearance and consistence, and is the nutmeg soap of commerce. It is said to be a very effectual remedy in chronic rheumatism.

With the exception of spice, the Banda islands produce scarcely any thing worth mention; rice and all the necessaries of life are imported. The large canari trees bear a sweet, well flavoured nut from which they make excellent oil and in considerable quantities. The common canari contains rather too much oil to eat any quantity of, but the canari Ambun is one of the most delicious nuts I ever tasted. When young it is covered with a pink skin like the scarlet filbert, to which it is no way inferior; it has a delicacy and at the same time richness of flavour peculiarly its own. Grape vines grow well and bear abundantly, the bunches are said to be as fine as any produced in Europe, the time of my visit, however, was unfortunately not the season for grapes. The ordinary fruits of the

Indian Archipelago grow here; they have the dorian, mangosteen, jack, and many others, though not produced in marketable quantities; this is not, because they would not flourish abundantly, but on account of their room being better occupied by the more valuable nutmeg. All vegetables are extremely scarce, yet the soil is capable of producing anything; one more suitable for vegetables I have never seen, it seemed to me the beau ideal of fertility. Wild plants are scarce, I only met one worth bringing away. This was a very splendid orchid, if I may judge from the size of the seed vessels and length of the flowering stem; it has large pseudo tubers but not having seen the flower, I am unable to name it. The ordinary plants growing in the vicinity of the houses are cosmos sulphure, vinca rosea, russelia (evidently exotic); muscenda, clerodendron, spomea, and conyza balsamifera, form the chief features of the indigenous flora. The production of cryptogamous plants is tolerably abundant, particularly ferns; however, on the whole, there is but little scope for botanical investigation in these small islands.

#### SOIL AND CLIMATE.

Nothing more completely volcanic exists on the surface of the globe than this small group of islands. Neira is little else than volcanic ashes, mixed with large quantities of pumice stone, which, broken into minute portions, form in many places a sort of brownish gravel on the surface. The colour of the soil is nearly quite black, as is also the sand of the sea-shore. It is a sandy friable loam, enriched, by the constant falling of a very dense foliage, with a large proportion of vegetable matter. Nothing can be better suited to the thick fibrous roots of the nutmeg. The natural fertility of this soil is scarcely to be imitated, it has the paramount advantage of being able to supply the tree with all that it requires, without forcing or over-stimulating it. The soil of Great Banda is generally speaking of a brown color and has more tenacity than that on Neira. There is no granite rock to be found on either of the islands and but very little iron stone. The hills are composed of basalt, conglomerate, trachyte and obsidian; of conglomerate and trachyte there are many different kinds. It is a magnificent sight to pull round Gunong Api in a boat and observe the evidences of volcanic action accumulated at its base, whilst its summit and a

great portion of its sides are covered with a light colored sulphurous ash, in which is found realgar and other compounds of arsenic and sulphur, several specimens of which were shewn me by Dr Brandes.

The climate of Banda is in many respects similar to that of the Straits of Malacca, particularly at the Singapore end of them. The same constant supply of rain and no regularly dry season pertains to both places; two months is the longest period without rain, but so long a drought seldom occurs in Banda. It however suffers severely from very high winds, particularly during the north west monsoon, and even hurricanes have occasionally visited the islands, causing great devastation amongst the trees,

I have no regular metereological observation to offer, but through the kindness of Mr Andriesse, the Resident, I was furnished with the following facts. The south-east monsoon begins in May and ends in the middle of September. The north-west monsoon begins in the middle of November and ends about the middle of March; during the intervening months, calms and irregular breezes prevail. Both monsoons are ushered in with heavy rains; the north-west by severe squalls, whirlwinds and waterspouts. The range of the thermometer during the south-east monsoon is, in the morning from 76 to 79, noon 80 to 86, evening 79 to 80; during the north-west monsoon the thermometer ranges, in the morning from 80 to 82, noon 87 to 92, evening 80 to 84, so that their warmest is our coolest weather, and the general average of the climate is decidedly in favour of the Straits. During my stay the weather was cool and agreeable enough, but July is about their coolest month; October and November are represented as insupportably hot, disagreeable and unhealthy. Bowel complaints and fevers are then said to prevail.

#### POPULATION.

The whole population of these islands amounts to but 6,500 souls. The greater portion of these are convicts from Java; there are about 300 military and a few peons, 10 I believe is the number; there are, besides these, descendants of slaves, anak mas, distributed through the various parks, to which they are bound by a sort of feudal tenure, as they cannot leave the islands nor the



parks upon which they are born. The Parkineers with their descendants and a few Government officials complete the list. There is therefore no such thing as free labor or indigenous population in Banda; the number of women is disproportionately small. The wives and children of the anak mas are employed in the plantations to collect the produce and prepare it, but they can only of course collect from low trees, and that which is within reach of the long bambus. When the Portuguese first visited Banda there was an indigenous population of 24,000 inhabitants, and no less than 9 kings. Should any one be desirous of learning their fate, I refer them to Valentyn and a pamphlet published at Utrecht in 1848, by M. Dassen.

From what I have stated, I think we may draw the following inferences:—that seed from the Banda isles must be very much superior to that from any other place, retaining as it does all its indigenous vigor, unaltered by change of soil, climate and cultivation, for in its exotic state the fruit loses many of its distinctive features, as shewn in those long and ill-shaped nuts to be seen so frequently in Straits Plantations. These differences become yearly greater by every remove, but going back to the original stock will produce more uniform and perfect nuts. The Banda tree being a longer lived one than those in the Straits, the planter has every chance of obtaining a more vigorous and enduring tree, and this is pretty well established by the appearance, age, and bearing of the only original Banda plant known in the Straits and which is growing in Malacca. This famous tree is supposed to be upwards of 70 years old, and it still produces abundantly. This seems to hold out a fair prospect of similar advantage to those who are wise enough to avail themselves of the present opportunity of renewing their plantations. For these advantages the Straits Planters cannot feel too grateful to the Netherlands Government, whose liberal policy granted them the privilege of obtaining the fresh seed. And I cannot conclude this short paper without making a public acknowledgement, on my own account, for all the kindness, assistance and hospitality rendered me by the Resident of Banda, Mr Andriesse, who, with his amiable partner, made my short sojourn amongst them an oasis in this dreary pilgrimage, a bright spot to illumine the future and dispel for ever all feelings of

misanthropy, assuring me that warm hearts and cordial welcomes even for a stranger are to be found in every land, that human sympathies are cosmopolite, and that he studies his own happiness best, who gets rid of prejudices and conventionalities, and can believe that excellence of character is not the peculiar production of any country or climate.

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NOTES OF DUTCH HISTORY IN THE ARCHIPELAGO, EXTRACTED FROM  
THE RECORDS AT BATAVIA UNDER THE ADMINISTRATION OF  
SIR STAMFORD RAFFLES.

THE discovery of a passage to India by Vasco de Gama in the latter end of the fifteen century, gave a new spring to the industry and mercantile pursuits of the nations of Europe. The Portuguese, to whom the world is indebted for this great event, extended their commerce to Persia, Hindustan, Bengal, Surat, China, Japan, the Moluccas, Java, Acheen on the Island Sumatra, almost the whole Malay Coast, Siam, Pegu, the Coasts of Coromandel and Malabar, Ceylon, Macassar on the Island of Celebes, and the Phillipine Islands. The English, French, Danes, Spaniards, and especially the Dutch, became successively competitors in the lucrative harvest of the rich productions and manufactures of the East.

It is not our plan to write a history of the proceedings, successes or failures of the several nations who exerted themselves to the same end and purpose. We are limited to draw up a statement concerning the Dutch commercial transactions in India, as far as the documents we have had the means of collecting, will enable us to do, and which were partly translated by us from originals and partly from authenticated copies.

In this place we cannot avoid evincing our high admiration of the wisdom, patience and perseverance of the first Dutch rulers of the concerns of that nation, who had to contend with innumerable dangers and difficulties. Their first object was commerce, their second became conquest, partly through necessity and for the sake of their own security amongst nations who held Europeans in abhorrence,—whose religion, dress and manners were diametrically opposite to their own; and partly from a conviction that fixed establishments, in the different parts of India, were requisite, in order to give stability to their enterprizes.

The first Dutch expedition to the East Indies was planned by several individuals, at the cost of the state. They fitted out in the year 1594, three ships and a sloop with instructions to seek a passage to the northward, but the attempt proved fruitless. A second undertaking in the year following met with no better success, and the States General having declined any further participation in enterprizes of this nature, the town of Amsterdam sent two ships to proceed on the same route, but they also failed and returned to Holland, after having encountered many hardships and dangers.

In the meantime a very intelligent person, who had been in the Portuguese service at Goa, Cornelius Houtman, stated to some merchants in Amsterdam the nature of the Portuguese commerce, and the incalculable advantages they were deriving from the same, which caused the said merchants to join their interests, calling themselves a Company of Merchants trading to distant parts (*de Maatschappy Van Verre*), and to send in the year 1595 four ships under the direction of Houtman, who sailed round the Cape of Good Hope, arrived at Bantam and touched at several ports of Java. He made a treaty with the natives of Bantam, in which both parties engage to trade honestly and fairly with each other, and to afford mutual assistance in case of being attacked by an enemy. This first expedition, however, did by no means fulfil the hopes and expectations of the Company, yet the failure thereof did not discourage them from further pursuits.

In 1595 Admiral Wybrand and vice Admiral Heemskerk, were sent to the Moluccas with four ships. The former came with two ships to Amboina and made an agreement with the Orang Kayas

or chieftains to pay them 35 Spanish dollars for each bhar of cloves of 550 Dutch lbs.

The vice Admiral Heemskerk went with the other two ships to Banda, and made an agreement with the Orang Kayas of Banda and Ortatan, by which a free trade and leave to build a warehouse were granted to the Dutch, in consideration of the payment of a toll of 4 bhars of mace; with the Orang Kayas of Neira he made a similar contract and obtained the same privileges for 60 lbs of mace. By the said contract the prices of mace, nutmegs and cloves were also fixed.

The first cloves were delivered to the Dutch in barter for 600 small medicine bottles for a bhar of 620 lbs. The price was afterwards fixed at 54 Spanish dollars per bhar.

A treaty, made in the year 1600, by Admiral S. van der Hagen with the Amboinese, stipulated, that they will assist each other in expelling the Portuguese. The Dutch were to build a castle at Kitoo, on condition that the cloves should be delivered to them exclusively.

Owing to the faithless conduct of the natives of Acheen regarding a pepper contract entered into with Admiral van Caerden, the ratification of the same was refused by Admiral Vlaming, yet after a long discussion it was agreed upon between the latter and the Rajah, that the pepper should be delivered at the rate of eight taels per bhar, and that the Rajah was to receive the Spanish dollars at 5 mace each, the pepper to be paid for on delivery; that is to say, 1,800 bhars to be delivered within four months, a duty of 5 per cent on exportation to be paid by the Dutch and no other nation to be allowed to purchase any pepper, until their cargoes were completed.

By Admiral van Neck a contract was made in the end of 1601 with the natives of Patani (situated on the East Coast of the Malay Peninsula) by which the Dutch obtained leave to build a house there. The price of the pepper was fixed at 30 Spanish dollars per bhar of 380 lbs Dutch and a duty of 5 per cent.

Admiral Wolfert Hermansz made a contract with the Bandanese in 1602, securing mutually a free exercise of religion and promising assistance against foreign enemies. In the event of intestine wars the Dutch were only to offer their mediation,

deserters to be restored by both parties. Religious principles to be unrestrained and a voluntary change of faith permitted. The spice trade to be exclusively granted to the Dutch.

A similar contract was also at the same time made with the Orang Kayas of Pulo Way.

In 1602, all the merchants who had hitherto traded to the East Indies, either separately or jointly, established under the sanction of the States General, a United Netherlands East Indies Company. A Charter was granted them for the space of 21 years, and their first capital amounted to 6 millions and 600,000 Dutch florins. That was but a small beginning, yet the success that attended the labours of those who had the direction of affairs was wonderful and astonished all Europe.

The new general United East Indies Company sent their first fleet, consisting of 14 ships and a sloop, under the command of Admiral Warwyk to India.

A contract was made in 1605 between the Captain and Orang Kayas of Hitoo and Admiral van der Hagen, by which the former acknowledge the sovereignty of the Dutch and promise, in reward for the protection granted them against the Portuguese, not to dispose of any cloves to other nations, to assist them in their wars, and further to render such services as might be required by the Dutch government.

A convention, dated 1st July, 1605, was entered into between Admiral van der Flagen and the native chiefs in the Banda Islands, which is similar to the contract made with Admiral Hermansz in 1602, stipulating, however, expressly that the Bandanese shall be at liberty to trade with other nations in such articles as are not imported by the Dutch.

On the 17th May, 1606, an agreement was made off Malacca between the Rajah of Johor and Pahan, and Admiral C. Matelief Junior, by which the latter engages his nation to assist His Highness in conquering Malacca, then in possession of the Portuguese, in consideration of which the town was to be ceded to the Dutch with as much ground as might be required to raise a fortification, the remainder of the territory to become the property of the Rajah, yet that the former shall be at liberty to cut as much fire-wood as they shall stand in need of. No tolls to be paid and no person allowed

to trade without a permit from the Dutch governor. The ordinance to be delivered to the Rajah, with one of the suburbs called Campong Kling, which he shall possess and fortify with the advice of the former. The rest of the captured property to be equally divided between His Highness and the Dutch, and all goods imported by foreigners, to be landed in the Rajah's dominions. An offensive and defensive alliance is concluded against the Spaniards and Portuguese, and no separate treaty shall be made by either party with those nations, but with regard to other powers the Dutch shall only act defensively in behalf of His Highness. All offenders against public worship and all unwilling debtors are to be summoned before the tribunals of their own nation, the first to be punished and the second to make good their engagements, deserters to be mutually given up.

A second agreement was entered into between Admiral Matelief Junior, and the Rajah of Johor, on the 23rd September, 1606, by which the Dutch are allowed to choose another eligible place in His Highness' dominions, as the projected attack on Malacca had not yet been made. The agreement of 1st May in the meanwhile is confirmed, although several articles of it must remain without taking effect.

Contract concluded at Malayo on the 26th June, 1607, between Admiral C. Matelief, Junior, and the Sultan of Ternate, stipulating:—

1. The manner in which the place is to be best defended against the expected attack by an armada fitting out at Manila.

2. That the Sultan of Ternate is to furnish the requisite number of cora-coras, to acknowledge the Dutch nation as the protector and supreme authority of Ternate.

3. That the expences of the war shall be borne by the Rajah and his subjects, as soon as they are able to do so, and the garrison left at Ternate to be paid from the imposts and duties.

4. That the clove trade shall be exclusively left to the Company . . . . . that in case any disputes arise the same shall be decided by the nation of the party aggrieved.

5. That the free exercise of religion be allowed.

6. That deserters shall be given up, and, finally—

7. That no separate peace shall be made either with the Spaniards or Tidorese.

Treaty between the Dutch Company and the Rajah of Bantam, concluded in February 1609, in the town of that name, by which the States General promise to assist His Highness against foreign invasions, particularly of the Spaniards and Portuguese, that is to say, that the Resident at Bantam will assist His Highness when attacked in his own country, but not in foreign territory. His Highness, on the other hand, promises to the Dutch a good and strong house, free trade and security for their persons and property, without paying any duties or taxes. All other European nations are excluded from either trading or residing at Bantam.

A contract was made on the 26th April, 1609, by Governor Houtman at Amboyna with the Orang Kayas of Roomakay, the latter acknowledging to have been freed from the Portuguese yoke by the Dutch, they swear fidelity to the States General of Holland, and promise to render them the same obedience and service as subjects owe to their sovereign, to supply government with as much sago as they shall demand and before this is done not sell any to others. They shall once a year wait on the governor, make him some presents, and sell their provisions, sago, rice &c in the Castle. The Dutch government on their part promise to assist the Orang Kayas and people of Roomakay whenever required.

Admiral Francis Wetters confirmed, in July 1609, the contract entered into between Admiral Matelief and the Rajah of Ternate without any material alterations.

The contract between Admiral van der Hagen and the Chiefs of Hitoo in 1605, was renewed by the former in August 1609.

In the same month and year, an agreement was also made between the Honorable Company and the Orang Kayas of the Islands of Banda, by which the latter consent to be subordinate to the government of Fort Nassau and to resign to the Dutch the monopoly in spices, the natives being allowed to barter spices for various necessaries of life, but these spices to be disposed of ultimately to the Company, wherefore all vessels shall anchor within reach of the Castle guns. The island on which the castle is built to belong to the Company, who shall protect the inhabitants and allow them a free trade in all articles, save and except spices &c.

A contract was made at the same time between Admiral S. H.



Hoen and the Orang Kayas of Hitoo, stipulating the free exercise of religion, that each nation should be subordinate to its own chiefs and no forts to be built by the Dutch in time of peace, without the consent of the natives. All the cloves to be sold exclusively to the Dutch at such a price as shall be fixed by the Rajah of Ternate.

In the same year a treaty was concluded in the name of the States General with the Rajah of Sambas, on the Island of Borneo, containing a promise on the part of the former to protect His Highness against his enemies at home but not in foreign parts, while, on the other hand, His Highness engages to allow the Dutch a free trade and a good house for their residence, without charging them any duties or to render them subject to any restrictions regarding the diamond trade, and further to interdict other nations from trading in his dominions.

Another treaty was entered into between Admiral S. H. Hoen and the Rajah of Bachian, on the one part, and the Rajah of Ternate on the other part, by which they mutually promise to assist each other against their enemies respectively. The Rajah of Bachian to restore the lands conquered by him from Ternate and each party to be allowed the free exercise of their religion. The Dutch engage, moreover, to build a fort in the Rajah's dominions, who is bound to furnish good houses and sell to the former all the cloves produced at Bachian which they will be allowed to export on paying the same duties as His Highness's natural subjects.

On the 26th March, 1611, a contract was made with the Sengadjees of Sebonge, Touchwane and Salo, the said Sengadjees promising to be faithful to the Dutch and Ternatese and to assist them against their enemies. They engage further to abstain from all communication with the Spaniards, and for the purpose of preventing any attempt on their part to establish an influence in the country, the Dutch shall be at liberty to build a fort. Both parties to have the free exercise of religion &c.

A convention was made with the King of Jaccatra in 1612, in virtue of which the Dutch obtained a free trade and a place was allowed them for a residence: among other stipulations are,—mutual assistance in all wars on Jaccatra; duty to be paid on all merchandize, except such as are imported on Dutch vessels and on

Chinese junks. The Rajah to permit the cutting of firewood, to assist in collecting bad debts, and not to permit the Spaniards and Portuguese to trade in his dominions.

By a contract with the Rajah of Bouton, on the 5th January, 1613, His Highness had a promise from the Dutch of having some troops for his protection, and of their intercession with the Rajah of Macassar to obtain a cessation of hostilities between that Prince and the Rajah of Bouton, religious principles to be respected, rebels punished by the competent authorities, a copper coin to be introduced, an offensive and defensive alliance to exist between the Rajah and the Dutch, the former promising to assist the latter in an expedition against Solor, and to grant them a free and exclusive trade in his dominions, rice shall be cultivated at Bouton, and the Dutch have liberty to cohabit with the women of the country, in order to cement the new formed friendship. The Rajah is to communicate this contract to the people of Banda and cause the same to be observed by them.

The Governor General Pieter Both concluded also a contract on the 6th of January following, with the Sengadjees and chieftains of the Island Machian, of which the principal points were free exercise of religion by both parties, arms and ammunition to be supplied by the Dutch at the same rate as to the Ternatense, the price of the cloves to be fixed for ever at 50 Spanish Dollars per bhar, all other nations to be excluded from the spice trade, and the contract with the Rajah of Ternate to be made applicable here &c.

A contract with the Rajah of Ternate, dated 4th March, 1613, stipulates that slaves of either, absconding with an intention to change their religion, shall be given up. Slaves that are made captives may be retained, on payment of their value being made to their former legal owner. Christian prisoners of war shall be exchanged for slaves, and Ternatense subjects in the like manner. Dutch soldiers that happen to be released from captivity by subjects of Ternate shall be delivered over without fee or reward.

At the accession of Governor General Gerrit Reynst, an additional contract was made with the King of Jaccatra, fixing the on duties arrack and the other articles at 800 Spanish dollars per annum, and on spices and sandal-wood at 5 per cent.

Contract concluded on the 15th March, 1616, between the Rajah of Amanooban\* (situated in the southern division of Timor) and the Dutch East India Company, according to which a pile of sandal-wood, measuring 5 fathom in breadth and one fathom and a half in height, shall be delivered by the Rajah, for which he is to receive in payment siry pinang, robe robe, and other small articles, some presents of cloths were also to be made to the Rajah and his chieftains in consideration of an exclusive trade granted to them.

On the 3rd May in the same year, an agreement was made with the Orang Kayas of the Banda Islands, containing the cession of these islands and of Pulo Way to the Dutch, resigning to them the exclusive trade in Spices, and promising to prevent ships of any other nation from anchoring near the Banda Islands, except vessels from Bantam, Jaccatra, and Japara,—these and the vessels belonging to Banda to be subject to visitation by the Dutch authorities.

The Dutch are authorized to fetch water and stone from Comber free from payment, the price of mace fixed at 100 Spanish dollars and of nutmegs at 10 Spanish dollars per Portuguese bhar.†

By an agreement with the King of Jaccatra on the 8th October, 1616, a piece of ground on the banks of the river at Jaccatra is granted to the Dutch, for the purpose of laying out a garden, on certain conditions expressed at large in the said agreement.

The Governor General L. Reaal entered into a contract with the Orang Kayas of Banda, on the 30th April, 1617, confirming former contracts and stipulating that the differences that had occurred shall be buried in oblivion, that no communication shall be held with Pulo Run, as long as they are at war with the Dutch, that no trade shall be carried on farther than Pulo Way and that even at that place no inhabitant of Banda shall land without a written permit from the Governor. The inhabitants of Banda do moreover engage not to navigate without passes and to look upon all Dutch subjects, of what nation they may be, as natural born Dutchmen.

\* This land was usurped by the Portuguese until 1749, when the natives threw off the yoke.

† This important contract has not been found in the archives, either in the native or Dutch languages, but is mentioned in the *Realias*.

An agreement of 25th July, 1618, stipulates that the Bandanese of Salamine shall deliver their mace and nutmegs exclusively to the Company on pain of confiscation. The fishermen shall not export cocoanuts from Neira, and no Bandanese travel by land or sea without a white flag as a sign of peace. All mace of a bad quality to be burned, and all vessels belonging to Banda to exhibit their passes to the Dutch vessels who may require to see them.

Contract with Chelly Bartany and the Chieftains of Solor, dated 7th September, 1618, containing a mutual promise of assistance, to advise the Rajahs of Goa and Maccassar of this contract, no person to be admitted at Solor without a pass from the King of Ternate, the coin to be reduced to a fixed standard and provisions to be sold at stipulated prices. The chiefs of Solor shall not interfere in differences which may arise between the Dutch and other nations.

Agreement with the King of Jaccatra on the 9th January, 1619, stipulating the fort is to remain in its present state until the arrival of the Governor General. The English to build their factory, and the natives their houses, at a certain distance from the fort, in consideration of which indulgence, the Dutch are to pay to the King the sum of 6,000 Spanish dollars, one half in cash and the other half in cloth.

On the 1st February following, an agreement was made between the King of Jaccatra and the commanding officer of the English on the one part, and the Commandant of the Dutch Fort at Jaccatra on the other part, the latter promising to give up the fort to the English and the treasure and merchandize to the King, and on the 9th of the same month, the King of Bantam having deposed the King of Jaccatra, it was agreed that the Dutch should be removed to Bantam and the fort given up to him, which however did not take place, the Governor General Koen arriving in May, and chasing the Javanese out of Jaccatra.

A Treaty was concluded on the 7th January, 1621, with the Rajah of Ternate, the principal chieftains and allies on that island, together with the chiefs of Loohoo, Cambello Lyssidy, Bonoa and Xulla, by which fidelity and allegiance were promised to the Dutch and sworn to upon the Mousaph.

An agreement was made on the 15th February, 1622, with the

Chiefs and Orang Kayas of the Island Manipa, stipulating on the part of the latter fidelity, obedience and assistance to the Dutch, and on the part of the first named protection, and that the cloves shall be paid at the same rate as those received from Loofoo, Hitoo and Cambello.

Contract with Lato Coly from Lyssedy on the 14th January, 1623, the conditions of which were as follows, viz. :—Protection by the Dutch, free exercise of religion, to be faithful and afford to the Company assistance by sea and by land, when required, not to enter into alliance, treaty or connection with others without the knowledge of the Governor at Amboyna, all the cloves to be exclusively delivered to the Dutch.

The Rajah of Ternate, the Captain Laet, and other chieftains, made an agreement with the Dutch Governor on the 12th November, 1624, stipulating that the ship "Faith" should be well fitted out and given to the Rajah, for the purpose of making an attack on Coulong, the booty to be made there to be equally divided between the Governor and Rajah, the latter to reimburse one half of the expences incurred for provisions, nothing to be done in that warfare without the concurrence of the Dutch Commissioners, who will be appointed for that purpose.

By the Governor in Council at Amboyna, a contract was made on the 28th December, 1629, with the Orang Kayas of Ceram, wherein the latter bind themselves to the following conditions, viz. :—The Dutch are at liberty to visit all sea-ports, the Orang Kayas shall not enter into alliances with the Spaniards, the inhabitants of Tidor, Macassar, Banda, the English, French, Danes, or any other nation, not to trade to any other places but Amboyna without passports, to permit the people of Key Arow and other Dutch subjects to visit their sea-coasts, to return deserters and slaves, on being paid for each person Spanish dollars 20, robberies and hostilities to cease, and public services to be performed when required by the Government of Amboyna.

On the 15th June, 1625, a contract was made with the Rajah of Batchian,\* stipulating that all foreign sago traders shall pay a

\* The Island of Batchian is one of the Molucca Islands. It is a large but desolate country, and but thinly peopled. The principal article of produce is sago. In former times it also produced a large quantity of cloves, but the laziness of the inhabitants and a despotic government caused this cultivation to be neglected, and

duty of 10 per cent, to be divided between the Rajah and the Dutch, the same to be observed with respect to foreign imports of other articles of merchandize.

Treaty of peace, dated 5th July, 1626, with the Kimelaha Leleatta, Governor of the Rajah of Ternate, over the places of Luciela, Loohoo, Cambello, &c, stipulating that hostilities shall cease, a free trade subsist, no cloves be sold to other nations but the Dutch, &c, &c.

Another treaty was made with the same nations, on the 20th October, 1628, in which the price of the cloves is fixed at 60 Spanish dollars per bhar, and is for the rest a repetition of the former contract.

A treaty with the Rajah of Ternate, dated 14th August, 1629, stipulates that the cloves shall be delivered to the Dutch Company, at the rate of 50 Spanish dollars per bhar of 625 lbs, Dutch weight. The clove plantations and trees to be well taken care of; the Dutch Government to furnish the Rajah with Spanish dollars, as far as he may require, for which value shall be given.

Articles, dated 18th December, 1629, submitted by the Pangeran of Jambi\* to the Dutch and English Companies, the punctual observation of which is the only condition on which he will allow them to continue trading in his country. These articles are—to relinquish all former debts or claims, to submit to his authority in the same manner as his own natural subjects, to leave their ships a little way down the river, and not to moor them off the factories, to pay 6 Spanish dollars for every picul of pepper, in failure of which the trade in that article will be thrown open to other nations, not to molest these foreign traders on pain of being punished by the Pangeran by way of retaliation.

Contract on September, 1630, with the Orang Kayas of Hitoo and Mamala, stipulating that they shall live in peace and amity

it was ultimately abolished. Subject to Batchian are the Islands of Oobi Oobi, Latoo, and many small islands within the limits of three Dutch miles.

\* A Malay state on the South East of Sumatra. The Pangeran, who is generally called King, is independent of the king of Achin. Jambi carries on a great commerce, chiefly in pepper and gold dust, which is bartered with the English, Dutch and other nations resident in India.—*McQuoid*—Jambi is now under the Dutch protection. The port of Moara Kompeh is open to general trade, but is only resorted to by native craft. From its vicinity to Singapore, the greater part of the produce of Jambi naturally finds its way to that port.—*Ed.* (1856.)

with the Dutch; assist with vessels and people when required and to deliver clean, dry, cloves exclusively to the Dutch.

Agreement with the Orang Kayas of Tobo, dated 30th November, 1631, stipulating that two children of the principal chiefs shall be sent to the Fort at Amboyna and receive an education there, to restore runaway slaves, for each person being paid to him who brings them back 15 Spanish dollars, but if the owners come to Tobo and claim them there 10 Spanish dollars only, it shall be permitted them to navigate and to trade to Banda and Amboyna &c.

Contract with the Orang Kayas and people of Hittoo on the 28th May, 1634, by which the former swear fidelity to the Dutch and promise to build vessels for the service of the Company when required, to hold no communication with the enemies of the Dutch Government, to sell their cloves to the Company, to destroy all the fortifications in the land of Hittoo which the Governor of Amboyna shall consider superfluous, and to erect others where he may deem it necessary.

Agreement with Rajah of Macassar, dated 26th June, 1637, stipulating that a house will be given to the Dutch as long as their vessels remain in the harbour, that they shall commit no act of hostility against the Rajah's people, that all questions arising between them and the English or other nations will be decided on by the Rajah and his Council and the Dutch Resident; that the fort of Macassar shall be considered as neutral; but that if the Dutch there are attacked by enemies they shall be at liberty to retaliate.

On 20th August, 1642, all former contracts were renewed with the Rajah of Ternate, and it was further stipulated that the Rajah shall take away from Amboyna all the natives of Ternate, men, women, children and slaves, with their property, and not permit any of them to return without permission from the Governor General, that no foreign traders, either Europeans or Indians, shall have access to the Rajah's dominions, unless they can produce a passport from Batavia, and even then only to the four following places,—viz to Fort Victoria in Amboina, to the Redoubt in Hittoo and to Loohoo and Cambello, on condition not to export any cloves, and on pain of capital punishment and confiscation of their property; that in order to guard the better against smuggling, the Dutch shall be at liberty to erect fortifications in the Rajah's

dominions where they may think proper, that the cloves shall be delivered exclusively to the Dutch, at the rate of 60 Spanish dollars per bhar of 550 lbs Dutch weight, clear and dry, in consideration of which the Rajah of Ternate is to receive annually the sum of Spanish dollars 4,000, payable in specie or in such articles as he may require from Batavia or Amboina.

A treaty was made with the Pangeran Depatty Amumat at Jambi on the 6th July, 1643, stipulating that permission be given to all native vessels to trade at Jambi without molestation from the Dutch, that all vessels from Jambi bound to the Eastward and to the Mataram shall touch at Batavia and take out a pass, on penalty of confiscation, that those bound to other places mentioned in the Treaty will obtain the permission of the Resident, and those trading to the tin countries shall touch at Malacca; that four Shabandars, appointed by the Pangeran, will superintend the shipments of pepper, and the Pangeran is to draw 80, the Shabandars 25 and the oppassers or custom house servants 10 Spanish dollars, for every 100 piculs shipped off, on condition that the Dutch and English nations alone be allowed to trade at Jambi, that the Dutch shall be at liberty to enclose their factory with a wooden paggar or fence of a stipulated thickness, and proceeding up the country they shall receive passes and an escort from the Pangeran for their protection.

On the 2nd February, 1646, a contract was made with the Captain Laut and the Orang Kayas of Timor Laut, setting forth: that the Dutch will be at liberty to build a factory to be protected by the natives, that no vagabonds from Macassar or Banda will be allowed to reside in the island, that certain goods shall be sold to the Company exclusively, that the free exercise of religion be allowed, prisoners of war restored without ransom &c.

Contract with the chief Orang Kayas of the six spice negries on the Island Damme, dated 28th May, 1646, granting to the Dutch permission to build houses, factories, redoubts, castles &c whenever they shall deem it requisite for the protection of their vessels and merchandize, without paying for the ground; all the nutmegs, mace, tortoise-shell, sarongs, slaves or what else may be the produce of this and the islands dependant on the same, shall be sold exclusively to the Dutch, and no other nations be permitted to trade there &c.



Contract in 1649 with Saiffœdien, Rajah of Tidore, by which he promises to destroy all clove trees on that island, and not permit that any shall again be planted there or on the dependant islands. An annual investigation shall be made whether any of those trees are still remaining and persons found guilty of cultivating spice trees, shall be punished. The Tidorese shall not keep up any intercourse with foreign states or nations, nor trade to any other parts but the Moluccas, without the consent of the Dutch Governor.

The Dutch promise to let the Tidorese enjoy the free exercise of their religion, to pay them annually 3000 reals of 48 stivers each, and to protect them against their enemies.

Contract of the 6th August, 1650, with the chiefs of Rarakit, stipulating that they shall be subject to the Dutch, live in peace with the allies of the same, not to admit foreigners into their country on any pretext whatever, not to trade to the westward of Amboina without special licence from government, but to Banda, Uliassar, Nossalaut and along the coast of Ceram a free trade is allowed them, to restore to the Company and to the Rajah of Ternate all the slaves belonging to them, never to rebuild the fort upon the hill, but to erect some other kind of fortification at the place of their abode for their defence, to deliver three of the sons of the principal persons among them, as hostages, who shall not be molested for the sake of their religion.

Agreement under 30th November, 1650, with the Orang Kayas of Goram, setting forth that they acknowledge the Dutch government as their sovereign, promise to be faithful to the same, not to enter into contracts with other nations and especially not with Europeans &c.

Contract with the chiefs of Hittoo, dated 29th April, 1651, stipulating that they shall be faithful to the Dutch Company, to keep no secret correspondence with the enemies of the same, but to assist them by sea and land when required.

Agreement with the Rajah of Ternate, under 31st January, 1652, stipulating that the Rajah shall cause the Kimelaha, who was his Governor at Amboyna, and his adherents, to be punished for the unheard of cruelties they committed at that place, that no clove trees at Amboyna shall be planted again where they have been

destroyed, to deliver over to the Dutch government such hostages as shall be required and pointed out, the Company to be at liberty to build and destroy forts whenever they deem fit for their interest, the Company shall pay to the Rajah the sum of 6000 reals per annum, as a compensation for the loss arising to His Highness from the interdiction in regard to foreign traders and a further sum of 200 reals annually in lieu of a duty of 10 per cent on the cloves that are growing there at Ternate; all clove, nutmeg and other spice trees found in districts where the inhabitants are still in a state of rebellion, shall be rooted out, but where the inhabitants remain faithful to their allegiance, no trees shall be injured but with the consent of the owners, with whom the Company can enter into agreements; after the total extirpation of the said spice trees, the Company promises to pay the Rajah, in lieu of the sum of reals 6000 above mentioned, the amount of reals 12,000 per annum, exclusive of 500 reals to His Highness's brother Quay Cielale Matte as long as he may be deserving of that favor by his conduct towards the Company and the Rajah, moreover there shall be divided among the chiefs who remained faithful to the Rajah, the sum of reals 1500 annually, as long as they behave loyally, no contracts shall be made with other nations without the approbation of the other party &c &c.

Agreement between the Regents of the Islands Xulla Bissic and Xulla Mongally, the Dutch Company and the Rajah of Ternate, dated 1652, setting forth that the first named promise to be faithful to the Rajah and to obey his orders, unless they should be in opposition to the interest of the Dutch Company, to treat as enemies and rebels all those who shall oppose the authority of the Rajah and the Dutch in the Moluccas and Amboyna, referring particularly to the Captain Laut, Googoogoo and Hakeems in the Moluccas, and the rebels in the interior of Amboyna and of the Islands of Booro, Amblau, Manippa, Kelang and Bonoa and those between Permatti and Gilolo, as far as the Island Ceram &c.

By an agreement with Sultan Ali, Rajah of Bachian, dated 7th November, 1653, it was stipulated that the Company is at liberty to destroy all the clove trees in the Rajah's dominions, for which they shall pay to the owners of the said trees a gratification of 400 reals of 52 stivers each for once, and to His Highness 100

reals annually in consideration that the destroying of these trees will cause a diminution in his revenues.

The Chiefs of Macquian made an agreement with the Dutch on the 26th June, 1655, stipulating, that they shall destroy all the clove trees on their island and not plant any again, for which a compensation will be made of reals 5000 annually, to be distributed among the inhabitants in proportion to the number of trees each of them shall have rooted out, on condition, however, that only one half of that sum will be paid until all the disaffected subjects shall have returned to their duty.

Treaty dated 21st December, 1655, with the Rajah of Goa, stipulating that all hostilities shall cease and he recall the force he sent to Amboyna; natives of Amboyna wishing to settle at Macassar shall not be prevented to do so, having the same religion as other inhabitants of that country, no depredations to be committed at Amboyna by the subjects of the Rajah, the Rajah shall be at liberty to collect his outstanding demands at Amboyna, yet without force or violence, all prisoners shall be exchanged except those who may have embraced another religion, wars with other powers shall not affect the peace between the Rajah and the Dutch, &c.

Another treaty with the same Rajah was made on the 12th January, 1656, similar to the foregoing, with the exception that in this latter the Rajah is allowed to withdraw his subjects from Amboyna, that the Company shall not interfere in the Rajah's quarrels with any nations to the leeward, that his subjects shall not trade to Amboyna, Banda and Ternate.

Treaty of peace and amity with the Rajahs of the islands Timor, Amanassie, Sonnerbayan and Corromeno Ammaker, dated 2nd July, 1656, stipulating, that all hostilities and misunderstandings shall cease forthwith, that they shall be faithful to the Dutch, and pay such taxes as the Governor-General shall impose upon them, not admit foreigners into their countries, nor to trade with them in gold, silver, brass, copper, wax, tortoise shell, slaves, &c, that the Company shall be at liberty to build fortifications in any parts of their islands, and the Rajahs afford them all assistance in their power.

Treaty with the chieftains of Ceram Laut, Kifflingh, Killemorry, Goram and Rarakit, concluded on the 18th November, 1656, the said chieftains promising to be faithful to the Dutch, to acknowledge their supremacy by right of conquest, not obey in future the commands of the chiefs of Macassar, Bouton or from any other but the Dutch, not enter into alliance or contracts with Europeans or Indians, not to navigate without passes from Amboyna, yet a free trade to this place and to Banda is allowed them; to make restoration of all property taken from inhabitants at Banda or Nossalaut, either in sago or slaves.

Treaty dated 2nd November, 1658, with the Orang Kayas of Booro, setting forth that they shall be pardoned for their misdemeanors and hostilities against the Dutch and their lawful sovereign, the Rajah of Ternate, that they shall be true to the Rajah and his successors, and faithful allies to the Dutch Company. That no natives of Macassar, Malays, or other foreigners, shall be admitted into the country, that all clove trees shall be rooted out and none again planted, that the navigation to Amboyna shall be free, and passes given by the Governor of Amboyna. Slaves and deserters to be restored on paying for each a gratuity of 10 rdrs., four hostages with their wives and children shall continually reside in the fort, and be exchanged every six months, &c.

A contract was made by the Governor of Banda with the Orang Kayas of Arro and the adjacent islands, dated 5th November, 1658, stipulating that all former contracts shall remain in force, that they shall build forts, houses, &c, at any place in their country where the Dutch require it, without remuneration or payment, interdict foreigners who are not provided with a permit from the Dutch to trade to their islands, and much more to settle there; they shall have liberty to visit Banda for the sake of trade or other purposes; and having repeatedly expressed their wish to be instructed in the Christian religion, a Schoolmaster will be sent them for that purpose, whom they are to respect and to treat with kindness and attention, &c.

On the 19th August, 1660, a treaty was made with the Rajah of Macassar, stipulating that the Rajah shall relinquish all pretensions to Bouton and the land and places subordinate to

the same, as well as all others being subjects to the Rajah of Ternate, he shall not meddle with the affairs of Amboyna,\* but leave the same to the Company, and the Rajah as lawful sovereign of the same; the Government of Macassar shall not permit the subjects of the Company or of the Rajahs of Ternate, Timor and Bachian to trade to Macassar, without producing a pass from the Company, no spices shall be sold there but by the Company alone, the subjects of Macassar shall not extend their trade to Solo, Timor, or other places in that vicinity, further than it is at present, nor shall they assist the enemies of the Company in the above-named parts, either with men, arms, ammunition, vessels, provisions, or any thing else; the Portuguese having been the cause and instigators of all differences and disputes which have subsisted for many years between the Government of Macassar and the Honorable Dutch Government, the Rajah shall expel that nation and their adherents and abettors from his dominions; the Rajah shall oblige the Portuguese to reimburse the Company for all they have successively received from the same, at His Highness's request, from the captured ships "Jean Baptiste" and "Nazareth," in 1652, and a sum of Spanish dollars 8,000 for the loss sustained by the desertion of the assistant Adrichem, who was conducted to Solo by the Portuguese, to give up the said Adrichem and others who deserted with him, all other deserters shall be restored, except those who have embraced the Mahometan religion; the Company shall in future have a Resident in Macassar, and carry on a free trade, not only there but in all other dominions belonging to the Sultan without paying higher duties or taxes than during the lifetime of His Highness's father; the murderers of P. Gillesen shall be punished by the Rajah, all misdemeanours committed by Company's servants or subjects shall be punished by the Company's chief and all disputes between the Dutch and the Rajah's subjects to be decided by mutual arbitrators; as soon as the Portuguese shall have left Macassar and other conditions of the treaty are duly fulfilled, the Company will

\* The Islands of Xulla, Boero, Amblau, Manipa, Quilang, Bona, the Coast of Manoola, Kitto, Laytimore, Honimoe, Noessalaut and Great Ceram, Ceram Laut, Goram and the adjoining islands.

withdraw its troops from the Panecoca, and deliver up the same to His Highness &c &c.

Supplementary treaty with the Rajah of Macassar, dated 2nd December, 1660, concluded at Lamboopoo Fort, setting forth: that the article referring to the restitution of a sum of money by the Portuguese on account of the captured ship "Jean Baptiste," is annulled, but the Rajah relinquishes on the other hand all pecuniary claims on the Company. The Rajah promises not to interfere in the concerns of the Company and to refuse admission to all vessels not provided with Company's passes; to pay 6000 mace of gold, as a compensation for the vessel and property of Mr P. Gillesen when that gentleman was murdered at Bima; to rebuild at his own expence the Company's Factory, with the exception that the tiles for the roof will be furnished by the Dutch; a Resident and nine persons to remain at Macassar, the Company allows Prince Calmatta to reside at Macassar, all who have adopted the Mahometan religion previous to the making of this treaty shall retain the same, all the Portuguese shall leave Macassar within the space of one year and never be re-admitted there or in any other of the Rajah's dominions &c.

Treaty of peace and agreement on the 10th February, 1661, with the Orang Kayas of Ceram Laut, Goram, Kiffingh and all the Negries to the Northward of Goolegoole who were engaged in the late war.

The Governor pardons them and their subjects for their late mutinous conduct, on condition to acknowledge henceforth the Dutch Company as their lawful superiors, the inhabitants of the places above named, who are now assembled at Solathay, shall return to their homes, where, after the Fort of that place shall be demolished, the trade of the Orang Kayas shall be confined to Amboyna and Banda, they shall break off all communication with Macassarese, Javanese, Malays, and other foreigners, and they shall keep them from their coast, no trade to be carried on by them to Amboyna or Banda without a written permit from the Sergeant at Goolegoole, no cloves nor nutmegs shall be exported from Amboyna or Banda on pain of severe punishment, their vessels therefore shall be searched and not visit other places but the

Castle Zeelandia at Hanimoa, and the Orang Kayas having represented that the restriction regarding their trade with strangers will prevent them from disposing of their Massoy, the Governor promises to recommend to the Supreme Government at Batavia to purchase that article from them at the established price; all runaway slaves shall be restored, the Orang Kayas shall furnish 20,000 ataps for the Fort at Goolegoole, which shall be kept in repair at their cost, they should assist the subjects of Amboyna in the recovery of their outstanding debts at Goram and other places and will in like manner, on application, be assisted in settling their accounts with subjects of the Company, the Orang Kayas promise further to make restitution of money or effects lost on the occasion of the murder of Simons, an inhabitant of Banda.

Treaty with the Pangeran Depatty of Palembang, concluded on the 27th September, 1662, whereby is stipulated that a reciprocal friendship shall subsist between the said Pangeran Depatty and the Dutch and that what is past shall be buried in oblivion; the Company is at liberty to build a factory and warehouses at Palembang, for which purpose the Pangeran will point out an eligible spot near which no natives shall reside within the space of 50 fathoms, the Pangeran shall protect the Company's servants and property, the Company's trade at Palembang shall be unmolested, the whole of the pepper shall be delivered to the Dutch exclusively at the rate of 4 reals when paid in specie and 4½ reals if bartered for merchandize, per picul of 100 catties or 125 lbs Dutch, and there will always be sufficient funds and merchandize at Palembang to pay any quantity of pepper that may be received and no duties whatever shall be charged &c.

Contract of 29th December, 1663, with the Orang Kaya of Romatiga, Mattheus Mendes, stipulating that the natives shall assist the Dutch with their cora-coras in cases of emergency only, and that the same be considered with respect to stone cutting and the limekilns, that the Orang Kayas shall provide prows and people for the Dutch who are going from the Coast of Kittoo to the castle and from thence back to the three houses, the inhabitants of which shall be divided in three classes and he who has the week shall not absent himself but be always ready to perform the Company's work &c.

On the 6th March, 1664, a contract was made with the Orang Kayas of the Island of Serouwa, setting forth that they (Orang Kayas) acknowledge the Dutch Company as their sovereign and promise that they will not give access in their island to any other nation but the Dutch, nor dispose of their spices to any others but to the Company, the nutmeg trees growing on their island shall be cut down on a certain payment being made to them for each tree. In consideration of the above the Company promises to protect them and to treat them with lenity.

Contracts of the same tenor were made with the Orang Kayas of the Island Damme, on the 30th March, 1664, and with the Orang Kayas of Pulo Nele &c.

Treaty with the Christian Chief, Anthony Bapias of the Island Togoulando on the 21st July, 1664.

The Chieftain promises friendship to the Company, to assist the same with vessels, men, &c, when required, and as far as the safety of his own island admits of it. The Company reciprocally engages to assist and to protect the Chieftain, who shall strictly adhere to the contract formerly made with his grandfather Rajah Bolango in regard to the rooting out of the clove trees, he promises further to assist Company's vessels that might be compelled to touch at Togoulando, and to supply them with necessaries, to procure small craft or timber to construct the same if demanded, to protect the school like a good Christian, to maintain a good understanding with all the Chieftains who are friends of the Company &c.

Agreement under 11th July, 1665, with the Orang Kaya Backos, on the Island of Macassar under the jurisdiction of Banda, containing a promise to be faithful to the Company and to prevent all communication with the Macassars, the Calemata people, the English and other nations.

Similar agreements were made on the 19th July with the Orang Kayas of Tooticay, on the 29th July with the Orang Kaya Sauual on the Island of Lety, and on the 4th August with the Orang Kaya Laloly on the Island of Lacker.

Treaties with the Rajah of Bouton on the 31st January and 25th July, 1667, stipulating that the Rajah Paduka Sirie Sultan shall cause all nutmegs and clove trees on the Tookan Bessie Islands to be destroyed, in consideration of which the Company



will pay to His Highness the sum of 100 rix dollars annually, being the amount of the revenue he has drawn from the spices on those islands. No vessels of other nations, especially none from Macassar, shall be permitted to trade at Bouton, unless they can produce passes from the Company; on the death of the Rajah immediate notice thereof shall be given to the Dutch government and to the Rajah of Ternate, for the purpose of electing a successor, who cannot be deposed but by the Company and the Rajah of Ternate, the Googooogs and other officers of high rank shall not be deposed without authority from the Company, the Rajah may send his vessels to Batavia, Amboyna and Ternate and also to Bugis, as long as the latter acknowledge the supremacy of the Company, but not to Macassar except with the permission of the Company, a fort and settlement may be built on the Island of Bouton by the Company, to which the Rajah promises to furnish materials, &c, hostages shall be given by the Rajah for the due performance of these treaties.

Treaty with the Rajah of Tidor, concluded with admiral Speelman on the 19th March, 1667, stipulating that the Rajah surrenders to the Company at discretion with all his subjects, that he shall deliver up to the Admiral all natives of Macassar now at Pontiana, and not permit any prows from Macassar or other places at war with the Company to enter the port of Pontiana nor shall he accept presents from the Rajahs of such countries, that he shall always be prepared to assist the Company against her enemies and never dare to take up arms against the same; that all nutmeg and clove trees within his dominions shall be destroyed for which the Company will pay annually as an indemnification to the parties concerned the sum of 3,000 reals of 48 stivers each, that no person shall be placed upon the throne of Tidor but with the approbation of the Company, hostages shall be given if required from among the Chiefs of Tidor &c.

By a treaty with Sultan Mandarshah, Rajah of Ternate, under 30th March, 1667, the said Rajah and his subjects are permitted to trade to Mindanao, but not to visit Amboyna, Banda or other Company's Settlements without express permission.

A treaty of the same tenor as the foregoing was entered into on the 12th April, 1667, with the Rajah of Bachian, act of

reconciliation between the Orang Kayas of Lissibata, and the Rajah of Taulaut under the mediation of the Dutch Company, dated 4th September, 1667. The Rajah promises not to offend or to make war upon the inhabitants of Lissibata, and Quipaty of Lissibata with the Orang Kayas engage not to molest the Rajah of Taulaut, both parties to live in peace and amity hereafter, they agree to deliver up all prisoners, to pay to the Company the charges incurred by her amounting to 200 rdrs., in cloth, guns and slaves, one-third by Lissibata and two-thirds by the Rajah, who now acknowledges the people of Lissibata for free subjects of the Company, the Dutch promise to re-establish a friendly understanding between the two contracting parties and the Rajahs of Someth and Siloulou, and further, that they will assist that party which shall be attacked in a hostile manner by the other.

Treaty of peace and amity concluded on the 18th November, 1667, with Paduca Serie Sultan Hassan Oodeen, Rajah of Macassar, setting forth that former contracts shall remain in force, that the Sultan shall deliver up all servants and subjects of the Company now residing within his dominions, that the vessels, guns, ammunition, cash or effects taken out of the ship, the "Whale" at Salayer, and out of the yacht "Lionness" wrecked at Pulo Dondoango, shall be restored, except 8 iron guns, for which payment has been made, that persons guilty of murdering natives of Holland shall be punished, that ultimately, before the end of the ensuing season, all debts to the Company shall be paid, that the Portuguese and English shall leave Macassar at an early date, the latter being the principal cause of the last war, in short no European nation but the Dutch shall have admission at Macassar, that the Company shall have the exclusive trade in Coromandel, Surat, Persia, China, and Bengal goods and merchandize, the coarse cloth manufactured on Java is, however, permitted to be imported, that no import or export duties shall be paid by the Company, that the subjects of the Rajah are permitted to trade to Balli, the Coast of Java, Jacatra, Bantam, Jambi, Palembang, Johor and Borneo, but they shall not navigate to Bima, Solor, Timor, &c, nor to the eastward of the point of Lassar, being the eastern part of the Straits of Salayer, nor pro-

ceed north or eastward of Borneo to Mindanao or the islands thereabout, on pain of forfeiting life and property; that all the fortifications on the Sea Coast of Macassar shall be forthwith dismantled, with the exception of Samboupo fort, that immediately after the ratification of this treaty the northern fort of Joupadang shall be surrendered to the Company, the village and inhabitants shall remain attached to the same and be no longer subject to the Sultan; that the merchants shall pay such duties to the Sultan as will be stipulated hereafter, that the Dutch coin current at Batavia shall hold the same value at Macassar, that the Government of Macassar shall deliver (as a penalty for the last breach of peace) one thousand male and female slaves, all young, healthy and full grown, being at liberty however to pay the value of the the same (being calculated at  $2\frac{1}{2}$  taels or 40 Macassar golden mas for each person) either in cannon, gold or silver, provided that one-half at least be remitted to Batavia in June next and the remainder in the subsequent season; that the said government shall not interfere in the concerns of Bima, that the Rajah shall deliver up to the Company all such persons as are now in his dominions who are implicated in the cruel murder of the Company's subjects committed by the Rajah of Bima and his subjects; that the Rajah shall renounce all claims on Bouton, and deliver to the Rajah of that island the people carried away from thence during the late invasion, that in like manner he shall restore to the Rajah of Ternate the people and guns taken away from the Xulla Islands and declare that these said islands lawfully belong to the Rajah of Ternate, that he shall still further declare that the Rajahs of Bugis and Looboo are free and independent Princes, and that he shall forthwith liberate the Rajah of Soping and his family and deliver them over to the Company, as well as all other Bugis men or women now in his power, that he shall in like manner declare the Rajahs of Loyo, Bancal, Turate and Padjang are independent Chiefs, giving up all claim to their countries; the lands conquered during the late war by the Company and her allies shall remain under their authority, that the Sultan shall also place at the disposal of the Company the state of Wadjo Booloo Booloo and Mandahar, which by their crimes and misdemeanours have incurred the displeasure of the Com-

pany, that Bugis or Ternatese having wives of Macassar, and the people of Macassar wives of the aforementioned, shall be at liberty to keep them, that no other nations shall be admitted at Macassar; that there shall be everlasting peace, amity and alliance between the Rajah of Macassar and the Company, in which are included the Rajahs of Ternate, Tidor, Bachian, Bouton; Bugis, Soping, Loobo, Turate, Sayo, Padjang and Bima, together with all other Princes and Chieftains who may desire hereafter to be admitted; all differences between the allies shall be referred to the Dutch Resident in order to mediate between them; that two of the principal Rajahs shall proceed to Batavia and solicit the confirmation of this Treaty by the Supreme Government, and that two of the sons of the principal Rajah shall be sent as hostages, if demanded; that the Company shall be at liberty to seize upon the property of the English at Macassar without opposition from the Sultan, that if the Rajahs of Bima and Montemarano are not detected within 10 days the sons of both shall be surrendered to the Company, that the Rajah of Macassar shall pay the Company the sum of 250,000 rix dollars for expences incurred during the late war, in five successive terms, either in gold, silver or jewels after valuation.

A contract was made on the 9th March, 1668, with the Rajah of Tello, by which he declares that with the advice of his Chiefs, brothers and subjects he has solicited the special protection of the Company, binding himself to be faithful to the same and to assist her in her wars, leaving to her also the choice of a successor to the throne of Tello on the death of the Rajah.

On the 13th March, a similar contract was made with the Rajah of Chinrana, Linques &c.

To these, two agreements with the Rajahs of Tello and Linques were added on the 25th July, 1669; after having acknowledged their deviation from their former engagements, they pray not to be charged with higher taxes than before, and promise to deliver up all the ordnance in their possession, to raze the Fortress of Tello and never to rebuild the same, the Rajah of Goa not having submitted to the Company shall be considered as an enemy, but all the Rajahs of Macassar and their subjects shall be pardoned; Croman having caused the breach of the contract shall be pursued and punished with death and his property confiscated for

the benefit of the Company, the Rajah or one of his chiefs shall reside on the Company's territory, the Rajahs of Tello and Linques finally promise not to enter the Company's Forts but with a few attendants and unarmed.

To the foregoing were afterwards joined the following articles.

The Orang Kayas Dain Macaule Shabandhar, Crain Mahomed and Crain Rapochim attended by Dain Mangalique, Dain Tello and others, promise that all the fortifications of Goa and Sadrabona, at the first requisition of the Company, shall be razed to the ground, that the Rajahs of Tello, Goa and Sadrabona shall keep no intercourse with Malays, Moors or other foreigners, but the Company be at liberty to quarter as many troops in their dominions as they may think proper, nor shall the said Rajahs receive any vessels into their rivers, unless they are provided with a Company's pass.

The old King of Goa likewise subscribed to the above.

Contract of 26th August, 1669, with Posalephan, Rajah of the large district of Liela, by which the said Rajah is admitted among the Company's other allies, towit of Ternate, Booton, Bugis, Turatta, Tareta, Batookika &c. He, the said Rajah, promises friendship to the Company and enmity to her adversaries, not to sell provisions or other articles to the enemies of the Company, the Company being at liberty to trade in the Rajah's dominions, who again may traffic at Fort Rotterdam and the allies in their territories on the Island Celebes &c.

Treaty with the Governments of Bima and Dampo, who having expressed their contrition for their hostile conduct towards the Company in the late war with Macassar, peace and amity was established between them, the Company to have the exclusive trade within the Dominions of Bima and Dampo, not to hold any intercourse with Macassar, nor to admit the natives of Java, the Malay coast, Acheen, Siam &c, without a passport from the Company, the exportation of Merchandize, such as sapanwood, cassia, tortoise-shell, wax &c, shall not be exported by any other but by the Company, who is to pay for the rice 24 rix dollars per Bima coyang of 80 measures, each measure weighing 54 lb, yet in times of plenty no more than the market price; the Silver coin of the Company shall be introduced and the Macassar gold withdrawn

from circulation, the Rajah of Bima being at liberty to establish such other coinage which the Company may receive in payment for their merchandize ; neither Dutchmen nor other Christians shall be permitted at Bima to adopt the Mahometan religion, the Company promising not to make proselytes of any of the Rajah's subjects : Dutch ships in distress on the coast of Bima shall meet with every assistance from the Rajah, the Company is to pay no duties, and is at liberty to build a factory within the Dominions of Bima and Dampo, all ordnance, arms &c, in the possession of the Rajahs, saved from vessels that were wrecked there, shall be given up, and those persons who have been implicated in the murder of the crews of the said vessels shall be severely punished, no fortifications shall be erected by the Rajahs without leave, if the Rajah of Sambawah should not agree to this Treaty the two Rajahs above named shall commence war against him ; they shall deliver hostages for the fulfilment of this Treaty if required &c.

About this period the Government of Banda entered into contracts with the Chieftains on the Island of Timor and with the Orang Kayas of Lety, of Pally on the Island of Moa, and of Mohooly on the Island Lackor, which are all in substance tending to the same point, promising submission to the Dutch, grant of a free trade with the exclusion of all other nations, in consideration of which the Company grants them protection.

On the 10th April, 1670, a contract was made with the Orang Kayas of Kiffingh, Goolo, Quamen, Hidde, Ernamme and Quaus, stipulating the free trade of the Dutch ; that they shall not build fortifications, nor retain fire arms but with leave of the Governor General, and as far as may be requisite for their defence, not to hold intercourse with the natives of Macassar, the Javanese, Malays or other foreigners, not to trade to any other places but Amboyna, Banda, Ony Coreay, the Islands adjoining Ceram Laut and Goram, Tecuuer included, but nowhere else without a Company's Passport, to root out all the clove trees and not to trade with spices of any kind &c.

Treaty with Rajah of Tosoor and the other Chieftains of Towadjo, 23rd December, 1670, who acknowledge that their country according to the right of conquest belongs to the Company, promising to be faithful subjects and abjuring all allegiance to the Rajah

of Macassar, all fortifications within the Province Towadjo shall be forthwith demolished and none other be erected, neither foreign European nor Indians shall be admitted into the country, the inhabitants of Towadjo shall be free to trade to Bally, along the coast of Java to Batavia, and to Borneo, provided they hold Passports from the Dutch authorities, but they shall not trade to Bima, Solor, Timor or farther to the South or Eastward of the Point of Lassam on the other side of Celebes, to the North or Eastward of Borneo, to Mindanao or the Islands situated thereabout; to pay the Company fifty-two thousand rix dollars in four annual instalments, for disbursements of the expences in the last war.

Contract with the Chieftains of the Negries Chinrana and Tchiambo, Malauwa and Bingo on the Island Celebes, on the 7th December, 1671, stipulating that they shall no longer be subject to the Rajah of Goa but submit to the authority of the Company, that they shall participate in the friendship or enmity of the Company towards all nations, deliver up three brass guns concealed last war by the Rajah of Goa, perform for the Company the same services as were imposed upon them formerly by the Rajah of Macassar, they shall pay a fine to the Company of 35 slaves viz: Chinrana 10, Tchiambo 10, Malauwa 10, and Bingo, (the smallest) 5 &c.

Treaty on the 18th June, 1672, with the Orang Kayas of the Island Maro, setting forth their submission to the Company and the principal points of all Treaties or contracts in the Moluccas, such as granting an exclusive trade to the Dutch, the building of forts and factories, &c, and the Company on the other hand promises protection to the inhabitants of the Island Maro, allowing them to visit Banda for the sake of trade or other purposes as often as they deem necessary &c.

Similar Treaties were made on the 29th June following, with the Orang Kayas of the Island Timor Laut, on the same date with the Orang Kayas of the Negries Eurottou, Autowally, Rum, Salla and Kamak Tooboor on the Island Ceram, on the 6th July with Orang Kayas of the Island of Laekor and on the 7th July with the Orang Kayas of the Island Salarow.

Contract on the 10th October, 1674, with the Chieftains of Mandhar, Billanipah, Chinrana, Manjinne, Parapooan, Binoang,

Calooko, Boucho, Mapile and Galerang, who engage to surrender to the Company all the ordnance in their possession which will be paid for, small arms they are allowed to retain; they shall set at liberty the natives of Ternate, Macassar, Bugis, Bouton and others made prisoners during the late war or who took refuge among them, the Company shall have a free trade to Mandhar and the preference in the purchase of the produce of the country, especially cassie lignum (which they call cayo Mangies) on paying the current price, all strongholds and fortifications shall be demolished, 30 slaves be given to the Company for the expences incurred during the last war &c.

Treaty with the Rajah of Sambawah on the 12th February, 1676, for the most part a repetition of the usual form: besides the Rajah's promising to break off all communication with Macassar, to permit the introduction of the Dutch coin, to deliver up all the heavy ordnance and all persons who are guilty of the murder of the crew of three Dutch vessels cut off on the coast of Sambawah, to send hostages to Batavia if required, the differences between His Highness and the Rajah of Bima and Dampo shall be amicably settled, His Highness shall maintain the deposed Rajah Maas Goa during his lifetime suitable to his birth.

Contract with the Chieftains of Bonte Cange, Gantarang, Tanette, Bookit, Poote Cange, Onto, Bonte Caries, Batta Matta, Baram Barrang Baden, &c, stipulating to grant assistance to the Company when required either on the Island Celebes, at Bima, Bouton or elsewhere, the said Chieftains shall possess on the Island Salayer their own negries, gardens, lands, fields, jurisdiction, &c, without molesting each other. The Chieftains themselves shall take up their abode under the Company's fort with their wives and children, in order that they may be present at all times, and in cases of emergency; the said fort being erected for their protection they shall keep the same in repair, the Chieftains shall give sufficient land to the garrison for gardens and fields to sow and plant upon, the Company has the disposition of the successorship of the Chieftains at their demise; subjects of Salayer have permission to trade under a Company's pass to Mangary, Bima, Bali, Java, and further to the westward, but not to the eastward either to Timor, Solor, or the adjacent Islands, nor to Ceram,



the Toucanbessy Islands, Timonko, the Bay of Boni, Loobo, the west and the north-west coast of Celebes, the coast of Borneo, but not farther east than the point of Lassa; the Company's silver coin shall be current and the Macassar coin brought out of circulation; disputes arising between the natives and the Dutch shall be settled by the Governor of Macassar.

A contract was also made with the Rajah of Tambora, containing the usual stipulations in all other contracts.

A similar contract was made with the Rajah of Sambawah, on the 12th February, 1676, stipulating for the exclusive trade of the Company, the introduction of the Dutch silver specie, the free exercise of religion, that the Rajah shall deliver up to the Company all heavy ordnance, to assist them in their wars, yet not beyond the limits of his Island, unless he be willing to do so, to settle all differences subsisting between him and the Princes of Bima and Dampo, and as the Rajah's aiding the people of Macassar caused great expences to the same, he shall pay such fine as the Supreme Government at Batavia shall be pleased to impose upon him.

Agreement with Kiay Nebel Wangsa Deepa, Governor of the Sea-ports of Java, on behalf of His Highness the Soosoooonang of the Mataram, dated 15th February, 1677, stipulating that the Company and the Soosoooonang shall assist each other reciprocally against their enemies, the expences of the war to be paid by the party assisted; that the Company's jurisdiction at Batavia shall extend to the Crawang river; slaves, debtors, and others flying from the territories of the one contracting party to those of the other shall be given up on demand, the Company is at liberty to import and export all kinds of goods and merchandize free from duty, and to establish a factory where it may be deemed most convenient. The Soosoooonang promises to supply the Company annually with 4,000 lasts of rice at the market price, payable at the places where the same are shipped, people of Macassar, Malays or Moormen having no Company's passes, shall not trade or settle in the Soosoooonang's dominions. The Company may attack the vessels of their enemies in the ports of the Soosoooonang.

His Highness promises to reimburse the Company for the

heavy expences incurred in assisting him against the Macassarese and Madurese, amounting to 250,000 Spanish dollars and 3,000 lasts of rice, deliverable at Batavia. The whole to be discharged in three annual instalments.

If a peace is concluded between His Highness and his enemies through the Company's mediation, he promises to submit himself to their decision regarding the terms, but if no accommodation is effected by the 30th July next, he engages to pay to the Company monthly 20,000 dollars, for the inevitable expences of the war.

The Company promise to station an adequate force on Japara hill, in order to preserve that place for the Soosoooonang, which force will also be maintained at the expence of His Highness.

By a treaty on the 20th May, 1677, the Rajah of Ternate resigns to the Company his right to the Island of Limbotto and Gorontalo on the Celebes.

A treaty with the Soosoooonang of 20th October, 1677, sets forth that His Highness owes to the Company the sum of 301,000 Spanish dollars and 3,000 coyans of good rice, yet not being able to discharge that debt at present, he mortgages to the Company all the sea-ports from the river of Crawang to the eastern extreme of the Island, the revenue of which will be drawn by the Company in diminution of the said debt, including the quantity of rice which His Highness is in the habit of receiving from his subjects at these ports, which the Company will cease to occupy as soon as the debt shall be paid.

By another instrument of the same date, the Soosoooonang makes over to the Company the kingdom of Jacatra or the land between the rivers of Ontong Java and Crawang and the southern and northern sea-coast. The inhabitants who wish to remain shall acknowledge the Company as their lawful sovereign, but they are at liberty to leave the Company's territory after the expiration of 12 months from the publication of this Act, and to remove to the dominions of His Highness.

His Highness, moreover, cedes to the Company, in acknowledgment of the services rendered by Admiral Speelman against the rebels, the country between the Crawang and Pamanookan

rivers, in a straight line to the south sea with all the immunities and privileges thereto attached.

Treaty on the 8th November, 1677, by which Rajah Amsterdam at Ternate and the Rajahs of Taroona, Boolang and Caudipan grant peace to the Rajah of Chiauu, viz, that the latter shall pay to the former a tribute of 500 pieces of Chinaware, 50 cutlasses, some muskets, 50 catties of gold, 50 slaves and a Cora-Cora.

Contract with the Rajah of Chiauu of 9th November, 1677, stipulating that the country shall be held by him as a fief of the Company on the usual terms, that he shall not tolerate any other than the reformed religion, no Roman Catholic Priest shall remain in the country and all Paternosters, Crosses, Images, or other signs of Idolatry shall be burnt; all clove trees must be rooted out and as Boolangitan resorts under Caudipan, which by the treaty of peace with Macassar in 1667, was ceded to the Sultan of Ternate and the Company, the Rajah and his Chieftains make over to the Dutch Government all their right and title to the same; that the brother of the King of Taroona, Don Martin Totanda Pocarilla, who has caused many disturbances, shall be delivered up to the Company.

On the 25th March, 1678, a Treaty was entered into with the Rajahs of Gorontalo and Limbotto, stipulating that they approve and confirm the transfer of their Territories by the Rajah of Ternate, whose subjects they were, to the Company; that they shall hold the said Territories as fiefs of the Company, the Rajahs shall not wage war, but if attacked act upon the defensive; with regard to peace or war they shall make common cause with the Company, who promise their special protection to the territories of Gorontalo and Limbotto; the produce of the soil shall be sold to the Company at the Manado prices; Slaves they are permitted to sell to subjects of the Company who hold regular Passes; Tortoiseshell shall be sold exclusively to the Company at the rate of 30 rix dollars per picul, if delivered at Limbotto or Gorontalo, and 35 rdrs, if delivered at Fort Malayo. The Rajahs shall not prevent their subjects to embrace the Christian religion, no Papists to reside or visit at Limbotto and Gorontalo; all free born subjects of Toming now in a state of bondage at Limbotto and Gorontalo shall be forthwith liberated; all spice trees without exemption shall be rooted out; the

Rajahs shall take no anchorage fees from Company's vessels or prows &c.

Contract of the 10th January, 1679, with the Chieftains of Manado, situated on the North East coast of Celebes.

The Chieftains from their own free will and choice, acknowledge the Company for their sole and lawful sovereign and promise to assist her on all occasions; to furnish materials for the repairs of the fortifications, to repair bridges and ditches, to build and to keep in repair a spacious house and a warehouse for the Company's use, to supply the Company with new and clean paddy.

The Governor, on the part of the Company, promises that the above Chieftains and their subjects shall be considered as faithful subjects and be protected, including in this contract the inhabitants of Saban, Datahan, Passan and Saccan with one part of Bantik, provided they withdraw from under the authority of the Rajah of Boolan.

Treaty on the 25th January, 1680, with the Ambassadors from Nanning and Rambow on behalf of the Rajah of Johor.

They swear fidelity to the Company and submit to the following regulations, viz : a native of Minong Kwebow\* dying at Nanning without heirs, his property shall be divided between the Company and the native Chiefs, if a Native of Minong Kwebow commit manslaughter and absconds, his property shall be confiscated by the Company, who is to give half thereof to his wife and children; one-tenth of the crops of rice shall be given to the Company, ten per cent ad valorem shall be paid to the Company on the sales of pepper.

The Company promises to give an adequate subsistence to the Chief of Nanning, besides one-tenth of the revenue collected; each boat coming from Nanning shall pay one crusade to the Company; slaves from Nanning flying to Malacca with intent to embrace the Christian faith shall be emancipated and the value of the same is to be paid to their master, the inhabitants of Nanning shall not trade with foreigners but sell their merchandize at Malacca.

An agreement was entered into on the 6th January, 1681, with the three Rajahs of Cheribon, setting forth their gratitude for the signal service rendered them by the Company and their determi-

\* Menangkabow.

nation to follow the Company's advice under all circumstances, to assist the same whenever required ; to live upon good terms with His Highness the Soosoooonang; should any of the Princes commit any act prohibited under the present articles or derogatory to the Soosoooonang, the same shall be punished with severity. No fortifications shall be erected without the consent of the Governor-General, who can build a factory at Cheribon, and cause all kinds of merchandize to be imported there duty free.

The whole of the pepper, being the produce of Cheribon, shall be disposed of to the Company at the bazar price, but if no Company's officer is sent to purchase the same, the inhabitants are at liberty to sell their pepper to private traders, navigating with Company's passes, under the restriction, however, that the same must be imported to Batavia. The trade in timber, sugar and rice is free to all, paying an export duty of 2 per cent to the Rajahs. Natives of Macassar, Malays and Moormen shall have no permission to settle at Cheribon and to trade there only with Company's passes. All vessels belonging to Cheribon will be provided with passports from the Company, authorizing them to trade to the eastward as far as Bali, but not to any places situated beyond Borneo.

Contract on the 15th June, 1681, with the Orang Kaya Amacutan of the Negry Dikoon on the island Wetter, setting forth that the said Orang Kaya acknowledges the supreme authority of the Company and promises not to admit foreigners into his country, to dispose to the Company of all the wax within his dominions or which is procured by the Alforese, at the rate of 12 rdrs per picul, payable in such articles of dress, merchandize &c as he may require for use and traffic. The Company are at liberty to build Forts and Factories at their option. The Rajah and his subjects shall be protected by the Company and the former is allowed to visit Banda as often as he may think necessary.

Similar contracts were made with the Orang Kayas of the Negrees Illiter, Sauu and Elmeedo on the Island Wetter.

Agreement with the Sengadies of the two Xulo Islands, named Xula Bessie and Mangoly, setting forth that the said Sengadies, considering the incapacity of their Sultan to protect them, submit to the authority of the Company, who promises them protection and

grants the free exercise of their religion, they shall not admit foreigners into their islands without permission of the Governor of Amboyna, they shall perform the same duties as other subjects and furnish provisions for the support of twenty-five soldiers, they shall further deliver 16 lasts of paddy per month, each last valued at 10 rdrs, and extirpate all clove and nutmeg trees.

In 1682, 6th July, the Sengadies of the Island Xula Taljata acceded to the above agreement.

And on the 3rd November, 1682, an agreement of a similar nature was also made with the Orang Kayas of the Island Moa.

On the 17th July, 1683, a treaty was entered into with the Sultan and all the Chieftains of Ternate, setting forth that they having waged an unjust war against the Company without provocation, the said Company has obtained an undoubted right to their dominions and free disposition of their lives and fortunes, renouncing the former at the pleasure of the Company for themselves, their heirs and successors, they renounce the recognition which the Company used to allow them annually according to former agreement viz: to the Sultan rix-dollars 9,600, to the Bobatos at Ternate 1,200, to the Chiefs at Machian 4,000, to the Sengadies of Moter 300, but declare at same time to be utterly incapable of re-imbursing the sum of rdrs 13,955 which the Company has advanced to the Government of Ternate. Declaring all former contracts null and void, the Supreme Dutch Government (from motives of generosity and compassion) re-establish the Sultan in his dominions, which will be considered hereafter as a feudal tenure of the Company and which the Sultan promises to cede to them when required. The Dutch Government further declare in the name and on behalf of the Company, that they will not be bound to former agreements entered into with Sultan Mandarshah respecting the appointment of a successor to the throne of Ternate, but that the Company shall have a free choice to elect whom they please, releasing at present the Government of Ternate from all former debts, the free exercise of religion is granted, but no proselytes shall be made by either party, all Christians subjects to the Company or others who rendered themselves guilty of crimes towards their government shall be given up. All clove and nutmeg trees shall be rooted out in the dominions of Ternate, Machian and

CHINO-HIMALAIC NUMERALS.

Chinese.

Table with 10 columns: numeral, Chinese characters, Chinese phonetic, English numeral, Chinese phonetic, English numeral, Chinese phonetic, English numeral, Chinese phonetic, English numeral.

Tibetan.

Table with 10 columns: numeral, Tibetan characters, Tibetan phonetic, English numeral, Tibetan phonetic, English numeral, Tibetan phonetic, English numeral, Tibetan phonetic, English numeral.

Gangeto-Utrairaidian.

Table with 10 columns: numeral, Gangeto-Utrairaidian characters, Gangeto-Utrairaidian phonetic, English numeral, Gangeto-Utrairaidian phonetic, English numeral, Gangeto-Utrairaidian phonetic, English numeral, Gangeto-Utrairaidian phonetic, English numeral.

Mon-Anam (mixed)

Table with 10 columns: numeral, Mon-Anam characters, Mon-Anam phonetic, English numeral, Mon-Anam phonetic, English numeral, Mon-Anam phonetic, English numeral, Mon-Anam phonetic, English numeral.

Dravidian Numerals.

Table with 10 columns: numeral, Dravidian characters, Dravidian phonetic, English numeral, Dravidian phonetic, English numeral, Dravidian phonetic, English numeral, Dravidian phonetic, English numeral.

Dravidian Numerals.

Table with 10 columns: numeral, Dravidian characters, Dravidian phonetic, English numeral, Dravidian phonetic, English numeral, Dravidian phonetic, English numeral, Dravidian phonetic, English numeral.

Dravidian Numerals.

Table with 10 columns: numeral, Dravidian characters, Dravidian phonetic, English numeral, Dravidian phonetic, English numeral, Dravidian phonetic, English numeral, Dravidian phonetic, English numeral.

Dravidian Numerals.

Table with 10 columns: numeral, Dravidian characters, Dravidian phonetic, English numeral, Dravidian phonetic, English numeral, Dravidian phonetic, English numeral, Dravidian phonetic, English numeral.





Tidor on pain of forfeiting life and property. The Company tsgran to the Sultan an annual subsidy of rdrs.. . . . 6,400.  
 to the Soasivos . . . . . 600.  
 to the Chiefs of Machian . . . . . 2,000.  
 to the Chiefs of Motir... . . . . 150.  
 as long as they shall merit such a favour from the Company.

Treaty of 29th June, 1684, with His Highness Philip Anthony, son and Heir to the late Rajah Anthony Bapias of the Island of Tagulanda, setting forth that the said Phillip Anthony having attained the age of majority and been instructed in the reformed Christian religion, and having also given unquestionable proofs of attachment to the Company, it has been determined to put him in full possession of the island aforementioned, on the following terms— that he and his chieftains shall consider their appointment as marks of favor of the Company, the people shall be governed by the existing laws subject to modifications from the Company, the Company will appoint a successor to the Rajah on his demise; the true reformed religion shall solely be tolerated at Tagulanda and all signs and remains of idolatry be destroyed, priests, conjurors and other persons of that description shall not reside on the Island Tagulanda; no Europeans but the Dutch shall be admitted; all former contracts, especially with regard to the clove trees, shall be adhered to, neither war nor peace shall be made without the knowledge of the Company, the Rajah's subjects shall not trade to Amboyna, Banda, Macassar, Magindanao or other places under any pretence whatever without a licence from the Company's Government, restraining their trade to those places mentioned; the birds nests and tortoiseshell collected at Tagulanda shall be sold exclusively to the Company at reasonable prices &c.

By a treaty with the Rajah of Johor, on the 6th April, 1685, the following privilege was granted to the Company, viz: the exclusive trade on Siac River, without paying any duties, provided that the returns are only to consist in gold and tin, that the Rajah be permitted to import annually one cargo of cloth and that the people of Johor are allowed a free trade in provisions (salt excepted &c.)

Contract of 30th September, 1686, with the Panghooloos of Ayer Trist, Bantina, Salla and Coa.

The contracts with the above named places, including Pattapan, shall be renewed; the Company shall not enter into any agreement with the Rajah of Pagger Oodjang which can affect this contract, nor shall the Panghoolos conclude any Treaty without the approbation of the Company; all the gold from the upper countries passing the Bandhare shall be delivered to the Company and paid for in spanish dollars, no gold to be exported through the River Campar, nor any other merchandize, salt only excepted; they are permitted to send one vessel annually to Batavia, Acheen, Queda, Malacca, or elsewhere, and to let her depart from and return to the River above named &c.

Contract with the Princes of Cheribon, dated 7th September, 1688, stipulating: that all former differences shall be forgotten and Panabahan Cheribon and Sultan Anum promise to respect and honor their elder brother Sultan Sopo, that Sultan Sopo promises not to slight his brothers, but to treat them with that deference due to their rank; that the Tournaments shall be held in front of the Court at Tapo, where the Princely brothers are to appear every Saturday in their state dresses attended by their Mantries, they shall be seated on the right and left of Sultan Sopo and the Mantries below, that the Sultan only has the right to speak at the tournament but in his absence that right devolves on the second and so in succession; that all letters from the Company will be addressed to the Sultan, and all ambassadors must wait on him, who then is to summon his brothers to appear, that all matters of state shall be decided by the three brothers and the council, that affairs of little importance are to be settled by seven Mantries, who are relations of the Prince; that none of the Princes are empowered to put one of their subjects to death without previous notice to the council of the state, that in this council the interest of the state shall be discussed, also all matters relating to debts, cases of incendiarism, robbery on the highways &c and the guilty are to be punished and the innocent protected according to the Javanese law, that there shall be no appeal from the sentence of this council, except in cases of the utmost importance; that the established duties shall be levied by the Shabandhar, one half for Sultan Sopo and the other half for Sultan Anum and his brother, which will be received by some person appointed by them

for that purpose ; that the Shabandhar is not allowed to interfere with the Chinese Arrack Manufactories, Gambling houses &c, these matters being left entirely to the management of Sinko, Chief of the Chinese, who pays to the Prince annually the sum of 3000 spanish dollars for that indulgence; that to Pangerang Topatty, the youngest prince, be granted the title of Panumbahan Cheribon, that in disputes arising between the Princes which they cannot adjust among themselves, the Resident at Cheribon will be requested to act as arbitrator on the part of the Company.

Agreement on the 26th January, 1689, between Kichil Kaloo Kobollang appointed Rajah of Bongay and its dependencies and the Dutch East India Company and His Highness Paduca Sirie Sultan Kitchiel Amsterdam, king of Ternate.

No Christians, either Europeans or Indians, or Malefactors which are subjects of the Company or the Rajah of Ternate having eluded the vigilance of the Police, shall be permitted to reside on the Islands of Bongay, nor shall the Rajah or his Chieftains harbour any runaway slaves. They shall destroy all nutmeg and clove trees on the Islands of Bongay. Those who import from other parts any cloves, nutmegs or mace shall be apprehended by the Rajah and sent to the Governor of the Moluccas in a state of personal restraint.

The above Islands will be under the authority and protection of the Company, the Rajah shall not receive any letters, messages or ambassadors from other states, but send them without delay to the Governor of the Moluccas; should any European or Indian vessels, not provided with passes from the Company, arrive at Bongay and endeavour to take possession of the island or to fix a settlement there, the Rajah and Chieftains shall expel them and give information of their proceedings to the governor of the Moluccas, who is then to adopt such measures as would be resorted to in similar cases in the Company's own territories. The Rajah shall make neither war nor peace without the previous consent of the Company, but in the event of being attacked he shall defend himself. The Rajah and his Chieftains shall assist the Company in their wars in all countries as well as in the Moluccas and on the Island of Celebes. The Rajah shall not permit any vessels to sail from his do-

minions for any place, except Ternate, without express leave from the Governor of the Moluccas. If the Rajah violates the present contract or behaves improperly, he shall be deposed and a successor be appointed by the Company and the Rajah of Ternate. No Forts shall be erected without leave from the governor. The Company is at liberty to construct fortifications and station troops on the Island of Bongay, to the building of which fortifications the Rajah shall furnish material and labourers. The Dutch coins, shilling and dubbelljes, shall circulate at the Bongay Islands at the same rates as at Ternate. The Company engage to purchase all the rice and paddy at the same price fixed elsewhere. No tortoiseshell and bird's nests shall be sold to any other but the Company at the following rates, viz.—if delivered at Bongay—

Tortoise Shell per picul....	....	rdrs.	32
Bird's Nests....	”	....	20
if delivered at Ternate—			
Tortoise Shell....	”	....	36
Bird's Nests....	”	.....	24

The Rajah shall do homage annually to the Rajah of Ternate and offer the presents or tribute usually given on such occasions.

In a later contract the price is fixed for tortoiseshell at from 40 to 70 six dollars per picul of 125 lb, pearl shell from 8 to 12 rdrs if large and glossy and for wax 16 rdrs when well cleaned.

Agreement with His Highness Jacobus Manopo, Rajah of Magondo, setting forth that he the said Rajah having ceded his country to the Company, is to hold the same as a fief, that no religion but the reformed shall be tolerated in the villages and on the Coast of Boolang, that no Roman Catholic Priests or monks shall be allowed to reside at or visit Magondo and this prohibition shall be extended to Macassarese, Javanese, Achinese and other Indian nations, that the subjects of the Rajah of Magondo shall not trade to Amboyna, Banda, Macassar, Magindanao or elsewhere without licences from the Company, that all spice trees shall be rooted out, that all bird's nests and tortoiseshell collected in the Rajah's dominions shall be sold exclusively to the Company.

To the above was added the following article. The jurisdiction of Boolan shall extend as far as Progiar, the Pontak

country and Booras, while Tonsawan, Poonosakan and Amoorang are in future to be considered as annexed to the Manado territory. Neither the subjects of the Rajah of Boolan and Magondo, nor the Alforese of Manado shall be allowed to pass these respective boundaries without a permit from the Resident. The Rajah and his successors desist from all claims on the Manado Highlands especially on the above negries Tonsawan, Poonosakan and Amoorang.

On the 18th April, 1701, a contract was made with the Chieftains of Sambawa, of which the following are the principal points viz.—the Chieftains promise to abide by the existing contracts, to be faithful allies to the Company, who is alone, with the exclusion of all others, permitted to trade in their country, all correspondence with Bima and Macassar shall cease, they shall deliver to the Company all their sapanwood, tortoiseshell and wax, for which they will be paid either with merchandize or specie, no imports or exports duty shall be paid by the Company, who engages to protect their country, &c.

Contract with the Rajah and Chieftains of Bachian, dated 21st April, 1703, setting forth renewal of all former treaties; the transfer of Pulo Ouby, Gomome, Anwouwa, &c by the late Rajah Allawadine is confirmed, and the Rajah and Chieftains do for ever relinquish all pretensions to those islands, no European or Indian shall be admitted at Bachian without special permission from the Company.

By an agreement under 14th June, 1720, between the Rajahs of Ternate and Tidor, under mediation of the Dutch Government, it was stipulated that the district Toniko shall belong to the Rajah of Ternate, and the district Kiaffo to the Rajah of Tidor, and that the navigation on the river Toniko shall belong exclusively to the subjects of Ternate as far as Toniko and Dodingo to the northward, and Kiaffo to the southward of the boundary as far as Vegaja shall be subject to the Rajah of Tidor.

Contract on the 21st October, 1721, with Sultan Assar Ingallaga, Rajah of Jambi.

All former contracts are renewed, the Company remits the debts of His Highness's predecessors, with the exception only of the monies advanced to Sultan Kiy Gedel for maintenance of

his brother Maharajah Batie ; the Company is to have the exclusive trade in pepper, the price being fixed at 3 Spanish dollars per picul if paid in specie, and at  $3\frac{5}{8}$  Spanish dollars if paid in goods, besides an export duty of  $\frac{3}{4}$  rdrs. per picul to be paid in specie, the pepper shall be delivered in front of the factory and weighed by the Shabandhar, for which service he will receive 30 Spanish dollars per day, and a present of 15 rdrs. in goods for each cargo of 6,000 piculs exported, the Company has the exclusive privilege to import opium, cloth and piece goods, the Rajah's subjects shall not trade, without passports from the Company, to the southward for Banca, Palembang and Batavia, and to the westward for Malacca and Billiton ; the Company is at liberty to build a house at the mouth of the Jambi river for the convenience of their servants, and the factory at Jambi will be surrounded by at least 50 roods of empty ground in all directions, foreign merchants trading at Jambi are during the time of their residence placed under the authority of the Company.

Contract with the Christian Prince Andrias Manaboung, Rajah of Kandhar, dated 3rd May, 1729, stipulating that the former contracts shall be renewed and confirmed, that in the event of differences arising between His Highness and the other Chiefs of Sangir or among the Rajah's own subjects, he is to give notice thereof to the Governor of Ternate, by whose decision he is to abide, that no foreigners shall form settlements in His Highness's dominions, that no other Christian religion than the reformed shall be tolerated, and that the Rajah is to use his influence to discourage Mahometism.

Contract of 26th September, 1730, with the Rajahs of Gorontalo and Limbotto, setting forth that the Company will enjoin the Rajahs of Attingola, Boolanga and Boni to bear their share in the Company's work in equal proportion with their Highnesses ; Company's vessels entering the river of Gorontalo are to be laden and discharged by the people of Gorontalo and Limbotto ; the tortoise-shell in the Rajah's dominions shall be sold exclusively to the Company ; Cruizers shall be sent to the Gulf of Tomine against the pirates, the Company promise to use their influence to engage the Rajahs of Macassar to prohibit their subjects from committing any acts of piracy in the abovementioned gulf ; the

Company will supply the Rajahs with 50 muskets at the established price, payable in gold or silver; the gold found in the district of Tomakallang and other parts of the country, shall be delivered unadulterated to the Company at 10 rdrs. per real, if a considerable quantity of gold is obtained from Pagoo or Tauma 10½ rdrs. per real will be allowed for the same; the Company will supply the Rajahs with rice from Manado as long as Tagia, Ampana and Mabuba, from whence they drew their supplies, are in the hands of the Booginese and Mandharese, the Rajahs promise to improve the state of agriculture in their dominions in order to lessen, and ultimately to obviate, foreign supplies, &c.

To the foregoing contract acceded on the 30th April, 1731, the Rajah of Boolanga and his Chieftains.

Contract with Miri Bifalalihiadjes Limahijin Balabi Malikel Manaah Shah, Rajah of Tidor, stipulating that the former contracts shall remain in force; if any well founded complaints are preferred from Amboyna, Banda, or other places against the conduct of the Papuas or other Tidorese subjects, the Rajah shall pay to the Company a fine of two healthy male slaves for each cora-cora, or other vessel belonging to his dominions, which may at that time be found on the high seas without regular passports, and an equal fine for each free native who loses his life in consequence of such depredations, a fine of one slave for each person wounded, and a fine of two slaves for each person carried off, all stolen slaves or other property, and all damages sustained by individuals, shall moreover be made good by the Rajah; the Company, on the other hand, promise that in the event of the measures to be adopted by His Highness to suppress piracy having the effect of exciting his subjects to rebellion, they will duly assist him in reducing such refractory tribes, if his own resources are not adequate to do so, the Company moreover promise to punish with rigor such of their servants or vassals as insult His Highness or his subjects.

A treaty was made on the 30th March, 1736, with the Rajah of Toutolly situated on the West Coast of Celebes, purporting that the Rajah and his Chieftains cede the country of Toutolly to the Company and shall hold the same in future as a fief and do homage accordingly, the people shall be left in the free exercise of their

religion, besides the Dutch no Europeans shall be admitted in the country nor any Javanese, Chinese, Macassarese or other native Indians; the Rajah shall not give offence to any one by acts of piracy or otherwise; tortoise and pearl shell shall be sold exclusively to the Company who engage to take any quantity at a reasonable price; without special licences from the Governor of the Moluccas the Rajah's subjects are not permitted to trade to Amboyna, Banda, Macassar, Magindanao or other places; all spice trees must be cut down and none others planted, all the gold shall be delivered unadulterated to the Company at the rate of 10 rdrs. per picul; a strong and comfortable house of wood surrounded by a stockade shall be built by the Rajah for the accommodation of the Europeans who will be stationed at Cala Ontong and properly kept in repairs, four men shall daily be furnished for the service of the European detachment.

Contract with the rebellious inhabitants of Maros, after their chiefs had laid down their krisses and implored the pardon of the Governor of Fort Rotterdam, dated 15th January, 1738.

They forswear the fidelity they had promised to the rebel and usurper of several territories to the north, Dian Mainarce alias Crain Bontolancas, they also forswear the Rajahs of Goa, Tello, Sandra Boné &c, and acknowledge the Company as their sovereign, they will perform to the Company the same feudal services which they were wont heretofore to perform for the Rajahs of Macassar, such as repairing Fort Valkenburg &c, they promise to observe punctually the contracts existing between the Company and the Rajahs of Goa and Tello &c.

Agreement with the Chieftains of Halmahera on the — 1739.

The chiefs of the villages of Halmahera promise to perform the usual services to the Company and to give notice if they discover any hidden spice plantations; not to act in any way without the permission of the Rajah not to listen to chieftains which are not expressly sent by the Rajah of Ternate; if they should become faithless and harbour any evil design against the Rajah or the Company they do invoke upon them the 30 punishments of the Coran and that the fire of the volcano at Ternate may consume them, that they may dissolve like salt in water and melt like wax in the heat, but they hope that if they do faithfully observe



this agreement God will bless them and prolong their lives.

From the year 1739 until 1774 no new contracts were made but many renewed, and after 1774 we have not found any more; that however such there must have existed cannot be doubted, yet what is become of them we are unable to discover.

It will be observed from the above collection of contracts, agreements and treaties, that the Dutch Government had a certain rule or standard to go by. After having expelled the Spaniards and Portuguese from the different Eastern Islands, they made themselves sovereign of the whole by degrees, and we see that nearly always the 1st article of an agreement contains a cession of the country to the Dutch and that the ancient possessors shall hold the same as a fief. The general tenor of all agreements stipulates that all the different Eastern nations with whom they are made shall be faithful to the Company, that both parties will allow the free exercise of religion, expel all Roman Catholic Priests and destroy their emblems of religious worship, that they shall reciprocally aid and assist each other in their wars by sea or land as far as their means will allow it; the Dutch to have the exclusive trade—especially in spices, gold, tortoise-shell and wax; that no foreigners shall be admitted in any of these Eastern countries to trade and much less to settle there, without leave from the Dutch; that all spice trees shall be rooted out and none again planted in the Moluccas; that deserters and runaway slaves shall be given up by both parties, that the various produce of the country shall be delivered to the Company at certain fixed rates, that the Dutch are at liberty to erect fortifications and to build factories whenever they deemed proper.

The treaties and contracts with the princes on Java form a separate collection, but being translated by us at Samarang where no clerks to copy them could be obtained, the rough translations were delivered to the Lieutenant Governor Raffles and never afterwards come into our hands again.

These treaties are not numerous and are for the greatest part of a commercial nature.

Those who have some knowledge of this valuable island, are well acquainted with the great change in the administration after

the termination of the 16 years war between the Dutch Company, the Soosoooonang or Emperor, the Chinese and Mancooboomie and his adherents. It may not, however, be irrelevant in this place to say a few words concerning that great change, for the information of those who are but little acquainted with the occurrences of these days.

The empire of the Soosoooonang extended from Cheribon to the Eastern extremity of the island, to which also belonged the fertile Island Madura, containing the districts of Sumanap, Pamacassang and Madura Proper. These districts were governed by great Chieftains, especially the latter; the smaller districts were administered by regents, who in proportion to their greater or lesser distance from the court were more or less independent.

The origin of that dreadful war, which overwhelmed Java with misery for so many years, must be traced so far back as the year 1703. At that time died the Soosoooonang or Emperor Amangkorat the 1st, when the Crown Prince Pangerang Depatty Anum, and the brother of the late Emperor, Pangerang Poogar, disputed with each other the succession to the throne. The Company, who mistrusted the Crown Prince, decided in favor of Pangerang Poogar, who was proclaimed under the name of Pacoeboeana the first. He was succeeded by his son Amangkoorat the 2nd, who after his death again was succeeded by his son Pacoeboeana the second. Rebellion and intestine wars laid the country waste, occasioned principally by the four brothers of the Soosoooonang—Manco-boemie, Aria Mattaram, Boeminata and Singa Sarie. The year 1741 is remarkable for bloodshed and crimes of every description, menacing the whole Island Java with total destruction. At this period the Chinese at Batavia and all over the island took up arms against the Dutch, who being unprepared for such an event applied to the Soosoooonang for assistance, which was promised them, yet underhand he befriended the Chinese, promising to put them in possession of all the seaports on Java after having expelled the Dutch from the island, which for that trading nation was a powerful incitement to risk the utmost. From Batavia and the western parts the Chinese were soon compelled to withdraw with the loss of some thousand men, but they retreated the east end of Java. At this time the Pangerang

of Madura, who was dissatisfied with the Soosoofoonang, his brother-in-law, come to the aid of the Dutch with 4,000 men. He killed all the Chinese on the Island Madura, and many to the eastward on Java, yet they remained still very powerful being joined by many of the regents. Meanwhile the Soosoofoonang became frightened, considering that if the Chinese were to succeed in expelling the Dutch, he himself might undergo a similar fate, for which reason he proposed peace and alliance to the Company. This was acceded to on the following conditions:—that all Dutch who were prisoners of war should be delivered up, together with their wives and children, that he should resign the sovereignty of the Island of Madura, of all the sea coast, Sourabaya, and of all the country situated to the eastward as far as Balemboangang, of Rembang, Japara, Samarang, and the lands thereto belonging.

When the Chinese saw that the Soosoofoonang had left them, they breathed nothing but vengeance, and determined to depose him and to appoint in his place a young man, named Maas Grendo. The latter having accepted of that dignity he was proclaimed by the name of Soosoofoonang Amancoorat Amancooboana. He took Cartasoura by surprise and made himself master of all the treasure of the Soosoofoonang, who narrowly escaped with his son, the Crown Prince, and withdrew into the mountains of Pranagara.

An alliance between Chinese and Javanese, who hate each other, could not be lasting, and the former made an offer to the Emperor of submitting again to his authority on certain conditions being granted to them. Many of the Regents at that time returned to their allegiance, but the Emperor rejected the proposition of the Chinese, whom he determined to extirpate altogether.

The capital Cartasoura was taken by the Madurese, and the new Emperor was obliged to seek his safety in flight. The Pangeran Ingebey, brother of the old Emperor, was elected in his room, but his reign was of short duration; the old Emperor being re-established by the Dutch, the greater part of the refractory Javanese, and among others Maas Grendo, returned to their allegiance.

The Pangeran of Madura who had been especially active in subduing the Chinese and their adherents, and in re-establishing peace and tranquillity on the Island Java, declined to be any longer subject to the Soosohoonang, but declared, together with the regents of Pamacassang and Sumanap, that they were willing to acknowledge the sovereignty of the Company, which was acceded to.

Haughty and supercilious, the Pangerang laid too great stress upon the success that had attended his arms and the services which he had rendered in subduing the Chinese and the rebellious Javanese, demanding as a reward that the tolls at Griessee, Toeban and Sidayo should be ceded to him, that he might bear the title of Panumbahang and that the regentship of Sourabaya should be given to his son Sasra Diningrat. These demands were declined, as the Dutch Government thought that the cession of the tolls would be too great a sacrifice on their part. The Prince felt highly indignant at this refusal, collected his forces and applied to the regents of Sumanap and Pamacassang for assistance, in which he did not succeed.

The Dutch who saw the rising storm, sent Ambassadors to Madura who endeavoured to pacify the troubled spirit of the Prince, they represented to him the great advantages he had derived from being no longer dependant on the Soosohoonang, and that the Company would always be ready to favor and to protect his children. To this he replied that he had sufficient proofs that the promises made by the Company were but seldom performed; that with regard to his independence of the Soosohoonang it had been purchased by the loss of many of his people, that he was by no means obliged to the Company for the regentship of Madura and that from the late war the Company had derived great advantages, having obtained by means of that war the lands of Sourabaya and those to the Eastward of Passarouang with all the Shabandharies on Java and still were unwilling to acknowledge the essential services which he had rendered them during the war.

Hostilities commenced and the Madurese made themselves master of Sumanap, Pamacassang, Sassum, Padjankoengong, all the villages as far as Paradessie and the Island Manara, laying several districts of Sourabaya in ashes. He was joined

by the rebels of Malang and by some of the Chieftains of Bali.

The war was continued for a considerable time with various success, until at last the Dutch with the assistance of some allies prevailed, and the Prince of Madura with his two sons Sadra and Rana Diningrat were obliged to seek their safety at Banjermassing, from whence the latter was sent to provide troops and ammunition; it being said at that time that the English then, and had long before, entertained a secret correspondence with the Madurese. The Prince embarked at Banjermassing on an English ship, but a Dutchman who was there claimed that he should be delivered up, together with his son Sasra Diningrat, he being a rebel to the Company, who was an ally of the Sultan, in consequence of which the Prince and his son were sent to Batavia, from whence the father was banished to the Cape of Good Hope and Sasra with Rana Diningrat, which latter had likewise fallen into the power of the Dutch, were sent to Ceylon.

Peace was now re-established all over the Island Java and might have been of long duration, if the Soosoofoonang had not been a man of fickle and superstitious character in whom his regents placed no confidence.

The Pangerans Mancooboomie and Mancoonagara, the latter being married to a daughter of the former, were in open rebellion against the Soosoofoonang. Mancooboomie was a son of Soosoofoonang Amancoorat and brother to Pacooboona the second. He left the Court at the time of the Chinese war and sought the protection of the Dutch, and after peace had been made he returned and was pardoned by the Soosoofoonang.

Mancoonagara or Maas Said had already at an early age joined the rebels. He was a younger son of Pangeran Mancoonagara, who had been banished to Ceylon where he died.

The aforesaid two Chieftains became very powerful, the eastern parts of the island were laid waste, many thousands of the inhabitants were killed, and the Soosoofoonang and Dutch brought to great distress, and although the enemy was repeatedly conquered, and notwithstanding all the successes of the Dutch and Soosoofoonang, the latter were unable to quell the fury of the rebels, who whenever they were defeated sought refuge in the caverns and hollows of the southern mountains. This

destructive warfare could not possibly have been carried on by the Dutch, to whom the loss of every European was of the greatest value at that period. Proposals of peace and pardon were consequently made to Mancooboomie and Mancoonagara, but rejected by them as their pretensions had been considered inadmissible.

The Soosohoonang died in the year 1749, and was succeeded by his eldest son, but previous to his demise, on the 11th December of the said year, he ceded, in the most solemn manner, the empire of the Mattaram to the Dutch East India Company, whose representative, the commander of the forces, surrendered the same, either as a fief or as his property (which, the Dutch writer of this history is unable to ascertain) to the Crown Prince with the title of Soosohoonang Pacooboona the third.

It is remarkable that on the same 11th December, when the old Soosohoonang ceded his empire to the Dutch, Mancooboomie, who had hitherto only assumed the title of Sultan of the Mattaram, caused himself to be proclaimed Soosohoonang Pacooboona Senapatty Mattaram.

The old Soosohoonang died on the 20th December.

In the beginning of 1750, the enemy was expelled out of the Mattaram, which Mancooboomie revenged by killing 30 Europeans who had fallen into his power. He made himself again master of the whole Mattaram three days after he had defeated the Dutch and Madurese troops, yet he was obliged soon again to withdraw in the southern mountains, after having made a vain attempt in the western districts.

Maas Said was not more fortunate than his father-in-law, and was obliged also to seek his safety in the southern mountains after having been three times defeated.

Sourabaya is a large district which had been ceded to the Company by the late Soosohoonang and rendered him annually one thousand coyans of rice for which no payment was made. There were two regents, Sitjenagara and Pandjee; the latter dying was succeeded by Indranalo who had been regent in the Mattaram, Sambarawa and Damak. Disputes arose between the two regents regarding the succession of Pandjee, and Setjenagara, was at the same time highly irritated against the Company whose servants had

promised that he should be sole regent, in which he was deceived when, much against his expectation, Indranatra was appointed second regent. The first act of hostility Setjenagara committed against his colleague was the setting fire to his residence, and to oblige him to take refuge in the Dutch Fort he caused batteries to be erected and laid waste the district of Lamongang, Passourouang, Bangel and others, yet he was every where defeated and at last forced to seek safety in the Malang District.

Mancooboomie and Maas Said in the mean time, who were on bad terms, sent repeated embassies to the Dutch Government, each for himself and in his own name, but continued, notwithstanding, their depredations in the territories belonging to the Soosoooonang, and Maas Said intimated that he considered himself to have some pretention to the throne of the Mattaram and that the then Soosoooonang ought to be deposed, being afraid that the choice might fall upon his father-in-law.

In the year 1753 the Company in acknowledgement for his great services gave up to the Prince of Madura the contribution he was obliged to pay for the space of ten years, amounting in whole to 100,000 spanish dollars.

Open hostilities having broken out between Mancooboomie and Maas Said, the troops of the former were defeated, he then sent Ambassadors to the Dutch who were well inclined to treat with him about a peace. It was proposed that he should be appointed Crown Prince, to have command over the lands of Matjanagara and even expectation was given him, that he might succeed the Emperor if the latter were to die without issue. This negotiation however ended in nothing, as it appeared that the intention of Maas Said by no means was to submit to the Dutch Government.

Affairs on Java at that time were in a most deplorable state, the war between Mancooboomie and Maas Said continued, yet both were enemies to the Soosoooonang who had no aid or resource but from the Dutch Company. Mancooboomie however was sufficiently powerful to oppose his son-in-law as well as the Soosoooonang and the Dutch together.

A new governor having been appointed to the Eastern parts of Java, he endeavoured by repeated and friendly messages to prevail with Mancooboomie to put an end to the miseries of war. At

length the latter demanded that one-half of the island should be ceded to him, without declaring whether his meaning was that one-half also of the Sea Coast should be included, which afterwards appeared to have been the case.

Maas Said, on the other hand, pretended that he should be proclaimed Emperor of the whole island, and that trumpeters, powder and ammunition be sent him, his Bepatty adding that in case these demands were not complied with it would be better for his master to be reconciled with his father-in-law, a hint by no means to be neglected.

His proposals having been rejected, he wrote to his father-in-law, offered his friendship and one-half of the Island Java as if he himself had been master of the whole. This irritated Mancooboomie and hastened the treaty he had commenced with the Dutch. The peace was made between the Soosoofoonang, the Company and Mancooboomie, and it was agreed that they should unite their forces to subdue Maas Said and his adherents. From this time Mancooboomie adopted the title of Sultan, and was proclaimed in the year 1755, with the concurrence of the Supreme Dutch Government, as sovereign of one-half of the eastern parts of the Island Java, with the title of Sultan Hamingcooboana Senapatty Ingalaja Abdul Rachman Sahidien Panatagama Kalifottalock ;—being in English “ Proprietor of the world, disposer of peace and war, a creature of God, defender of the faith, and confident of Providence.”

A person who has any local knowledge of the Island Java must be aware that it is nearly impossible by force of arms to subdue an enemy, who in virtue of his rank and birth-right finds everywhere adherents, whom no body dares to arrest, much less to kill, and who is acquainted with the inaccessible southern mountains and dark caverns which will secure to him a safe retreat against any European force.

Maas Said availed himself thereof whenever he was defeated, wherefore the Governor Hartingh wished to bring him to terms by lenient measures. He succeeded in so doing, and Maas Said sent his brother Timor with a certain Pringalaya to the Soosoofoonang, expressing the wish of their master that peace and tranquility might be re-established, and that the districts of Laro, Matthese, Cadoeang and Panjitan be ceded to him. He



then came to Souracarta and swore fidelity to the Soosoooonang and the Company; yet he could not be prevailed upon to swear friendship and submission to the Sultan, promising, however, not to act in a hostile manner against him. For his subsistence 4,000 Tjatjas in the districts of Caboeang, Laro, Matthese and in the southern mountains were granted him and the title of Pangeran Depatty Manconagara conferred on him at his request.

Thus ended a war which for many years had desolated the fertile Island of Java, during which time some thousand Europeans and many thousand natives had been sacrificed and which cost the Dutch company about four millions and a half of guilders.

(Signed) J. McQUOID,

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## NOTES ON NANING, WITH A BRIEF NOTICE OF THE NANING WAR.

By T. BRADDELL, Esq.

THE territory of Nanning lies inland of Malacca, extending in a triangular shape in length from the apex at Mount Ophir to the base on the Lingie river and Bukit Kayu Arang about 35 miles; the extent of the Province may be calculated at 240 square miles, while in physical description it does not differ in any respect from the neighbouring lands of Malacca; the two countries are not separated by any natural boundary.

When the Portuguese conquered Malacca in 1511, they followed the Malays into the interior as far as Padang Chachar, on the boundary of Nanning with Rumbow; but only on an expedition against a party which rallied there with a view to future attacks. With the exception of this, and similar incursions made for the purpose of intimidating the Malays, and driving them from the vicinity of their fortress, the Portuguese do not appear to have exercised any authority beyond the range of the fort guns. From their power and prominent position the neighbouring native territories were considered to be under their protection: a protection, however, which, according to the universal custom in these countries, was always extended by the superior authority, without arrogating any right of interference in internal government. Nanning appears to have been in this condition when the Portuguese at Malacca were driven out by the Dutch and their allies the Kings of Acheen and Johore, in 1641. In making arrangements consequent on this capture, the Dutch were installed in Malacca in the same position as the Portuguese, and being in alliance with Johore, the Suzerain of the neighbouring states and the troublesome enemy of the Portuguese, they were enabled to pay more attention to the interior than their predecessors, whose time and resources were taken up in effecting a trading monopoly and in resisting the constant attacks of the neighbouring Malays.

In pursuance of their policy of influencing the interior states, the Dutch began to exercise controul over Nanning. This was resisted, and a body of 200 Netherland soldiers, with a large party of Militia, was early prepared to enforce their authority,

but on Johore assuming a menacing position the expedition was withheld, the Rajah of Johore at that time having been too powerful to offend with impunity. The disturbed state of Nanning was, however, so injurious to their interests that in the year 1643 the Dutch felt obliged to interfere, and a deputation was ordered in Council to proceed to Nanning, "to *persuade* the Menangkabows of Nanning to adopt an agricultural and peaceful life." So great was the dread of the Malays in those days, that none of the Council would volunteer to undertake the mission; and, as the case was pressing, the Governor was obliged to go himself. Protected by a force of 180 soldiers he set out, and in three days arrived at the boundary of Nanning, a distance of 12 miles from Malacca. Here they were received with every mark of respect, and an agreement to the following effect was entered into by the chiefs on the part of the people of Nanning, date 1644:

1st.—That a Punghulu at Mullikey, against whom great complaints had been made, should be removed.

2nd.—That the Nanning people should keep the river clear for navigation—(against this clause there was considerable opposition, the Nanningites saying that "though subjects we are not slaves").

3rd.—Nanning to pay one-tenth of the produce of paddy to Dutch.

4th.—The chief to appear annually at Malacca to do homage.

5th.—That the inhabitants should be called by beat of gong, to enquire if they had any cause of complaint against the chiefs—(this clause, however, was neutralised by a proviso, that any person bringing frivolous or vexatious complaints should be punished).

6th.—Instructions in writing were to be furnished to the chiefs, pointing out the most advisable line of conduct for them to pursue in all ordinary occasions.

This is not different from any of the treaties made between Europeans and the lesser independant native states at the time; with the exception of the 3rd clause, which, however, was not attended to. The people having to pay taxes to their own chiefs, refused to pay, in addition, to the Europeans. In their attempt to enforce payment, the Dutch roused a spirit of opposition among the surrounding Malayan states, which resulted in a

general combination headed by Johore. The Dutch treated with Johore and succeeded in making terms. The remaining confederates, however, harassed the outskirts of the town of Malacca for some time by constant attacks. A force was sent to Naning in 1645, to put a stop to these incursions, but it was met and cut to pieces. This blow, however, was not followed up by the Malays, who apparently remained satisfied at having thus checked the interference of the Europeans in their internal affairs. Nothing was done now by either party for 7 years, when, in 1652, the chiefs on being reprimanded for executing a criminal without confirmation, confessed their error. Small quantities of paddy were sent down yearly, ostensibly as the tenth of the produce, but evidently considered by the Naning people as merely a present to the Europeans. Finding the chiefs a little slack in 1664 a force of troops was sent up to frighten them. On his return, the officer in command reported that he had met a number of Malays, or as they were called by the Dutch Menangkabows, peaceably driving home a flock of buffaloes in the evening, and that he had fired among them and killed two. The Governor in Council "hoped this would do good by preventing the rebellious "Menangkabows from disturbing them."

In 1679, Naning was allowed by the Dutch to enter into a separate treaty with Rumbow, the next state inland, and in 1701 a treaty was made by the Dutch themselves with Johore, by which the protection of Naning was made over to them. To explain this a reference to the history of those states is necessary. Previously to the arrival of the Portuguese, a colony from the great Sumatra Kingdom of Menangkabow, at that time apparently the head and protector of all the Malayan states, had settled inland of Malacca, where lands were allotted to them. In course of time they increased and formed 9 states, which were governed by a constitution similar to that of the parent state, but they were under the protection of Malacca; without, however, permitting any right to interfere in their internal affairs. When the Malays were driven out of Malacca by the Portuguese they formed a new capital, Johore, at the south of the peninsula, and continued to rule over the same country as before, with the exception of Malacca. Naning, one of the 9 Sumatra states, from its close proximity natu-

rally fell under the influence of the Europeans at Malacca, and in course of time it was excluded from consultation with the other 8 states in questions of peace and war. Johore exercised a protectorate over the 8 states, and doubtless over Naning also, in matters beyond the province of European government, such as settlement of appeals and hearing cases of importance with reference to religion &c, till the year 1758, when in a treaty between the Dutch and Johore,—Rumbow, Sungie Ujong and Johole, three states on the borders of Naning, were detached, and with Naning, the protectorate made over to the Dutch. However, the inconvenience of having no congenial resort for appeal and settlement of disputes and religious differences constantly arising among themselves, induced the states to apply to Johore to obtain for them a chief of the Royal blood of Menangkabow to occupy the place formerly held by the sovereign of Johore. A communication was opened with Menangkabow and a prince of that family was sent over under the title of "Iang de Pertuan Besar." This prince exercises no direct power nor has he any revenues beyond the fees of his office. His duties are to sit as President over the Punghulus of the states, on all matters affecting the common interests, and to hear appeals in certain cases, without however affecting the local jurisdiction of the Punghulus, who, each in his own district, exercise an exclusive internal jurisdiction, with the aid of four coadjutors under the name of Sookoos. For his support certain fees and customs are fixed, to be paid by the Rayats through the Punghulus. After the appointment of this officer, it was obvious that if the Europeans wished to retain their influence they must act on him; accordingly it was arranged that, on the death of an incumbent, his successor must pass through Malacca, produce his credentials, pointing out his lineage and connection with the Royal family of Menangkabow, and obtain permission to proceed inland where he should be regularly installed. This prince exercises power only in the 4 above named states, the other 5, as before, remaining under Johore. The English have long ceased to interfere with the appointment or examination of the Menangkabow prince, who proceeds inland without any ceremony or notice at Malacca.

The power now obtained appears to have increased the influence

of the Dutch, as in 1703, on the resignation of the then Punghulu of Naning, they were enabled to appoint his brother to succeed; and though the Naning people refused at first to accept the appointment, they did so ultimately, on the Dutch sending up the Captain of the Malays, from Malacca, to remonstrate with them. The collection of the tenth of produce had been merely nominal, and in 1746 the quantity had fallen to 200 gantangs, of the value of about 6 dollars yearly. The collection was in that year commuted for 400 gantangs, but on account of the poverty of the people one-half was remitted. The obvious reason was the inability of the Dutch to collect the tenth, as the rayats paid regularly to the Punghulu, and could not be induced to pay a second tax to the Europeans. Under a weak government it is not to be supposed that the people of Naning would be checked by fear of their European protectors; and, accordingly, frequent instances are on record where, from tyranny and oppression on the part of the Naning Chiefs, the country has been so disordered that the Dutch felt called on to interfere for the peace of their own territory, and in doing so frequently met with a repulse, as in the year 1761, when the Punghulu was repeatedly summoned to appear in Malacca, but as often refused to come down. Had there been any reason to consider Naning as part of the Dutch territory, it is impossible to believe that such conduct could have been overlooked. So long as the Europeans did not interfere with them, and were satisfied with a tribute of 400 gantangs of paddy, the chiefs and people of Naning had no objection to be called subjects, or any other name their European neighbours might wish. They were satisfied at being generally protected from external enemies, and for this protection they rendered the tribute universally exacted and paid in the east, in connections between a powerful state and its weaker neighbour. It thus would appear that the Europeans had a nominal claim to Naning as part of their territory, shewn by the acknowledgment of their right to one-tenth of the produce, but that, except on rare occasions, they never were able to interfere in the internal arrangements of the country, which was exclusively managed, even to matters of life and death, by its native chiefs; and that the tenth, instead of being a revenue levied in Naning for the Dutch, was merely a present or tribute of a few gantangs

of rice, not amounting to a thousandth part of the produce as will be shewn below.

In 1795 the English became possessed of the Dutch Settlement of Malacca, and it was supposed that Naning followed as part of the settlement; however, from certain reasons elsewhere stated, the English government did not pay much attention to the interior of the settlement. It appears that no notice was taken of Naning till the year 1801, when circumstances occurred which drew the attention of the authorities in that direction. On the 16th July of that year, a treaty was entered into by Colonel Taylor, then Resident at Malacca, with the Punghulu and 4 chiefs of Naning.

From a perusal of this treaty, which will be found in Newbold's work, it will be evident that Naning was treated rather as a protected state than as part of Malacca, as the European governments, in these countries, do not make treaties with their own subjects. In the year 1802, Dool Syed was installed as Punghulu of Naning by Colonel Taylor, on the condition that he was to use the English Company's Seal. The Dutch had succeeded in imposing a yearly tribute of buffaloes and fowls. The payment of buffaloes was now remitted, and in 1807 Colonel Farquhar remitted a tax of one rupee which had been levied on every boat coming down the Malacca river from Naning. This tax was one imposed in Malacca territory and therefore was beyond the right of interference of Naning under any circumstances; it was now, however, abolished, thus leaving only the 400 gantangs of paddy and 6 dozen of fowls as tax or tribute.\*

The chiefs continued to exercise exclusive jurisdiction in Naning, even to the power of life and death as before, till 1807, when Colonel Farquhar interfered and made a fresh settlement with the chiefs, by which the power of life and death was taken away and other matters of less importance arranged; among the rest the before named remission of the tax on boats. Excepting in cases involving capital punishment, however, matters as to the internal government of Naning were left on the old footing, no alteration being attempted till the year 1823.

In 1825 Malacca was finally ceded to the English, when certain

\* In 1746 the tax had been reduced to 200 gantangs on the pretext of the poverty of the people, but it was in 1776 raised again to 400 gantangs.

steps were taken by government for the settlement of the internal affairs of the territory. It was found that none of the lands of Naning had been granted by the Dutch, in the same manner as the lands of Malacca, a proof of itself, if further proof were required, that the Dutch did not possess Naning, and the question arose as to the disposal of the Naning lands. The Records were examined, and from them it was argued that Naning was an integral portion of the settlement of Malacca; that as such it was included in the maps and documents handed over by the Dutch authorities; that by the treaties before mentioned, one with the Dutch in 1644 and a subsequent one with the English in 1802, it appeared in plain terms that Naning was subject to Malacca, as in both these documents they bound themselves to pay one-tenth of their paddy crops to the Malacca government, and they had continued to pay this tax, the smallness of which was attributed to laxity in the authorities not having made the collections. The settlement of lands in Malacca was already made on the footing that the rayats were to pay one-tenth of their produce to government as a land tax, and it would have been obviously an unequal and improper arrangement to tax one portion of the land of the settlement, and exempt the other, on the supposition that Naning, as appeared by the Records and treaties, was an integral portion of the territory of Malacca. The Governor was strengthened in this course by finding that in 1822, the then Dutch Governor, Mr Thyssen, had taken steps to adopt a similar course, but on referring the case to Java for sanction, a delay had occurred, and the English again had obtained possession before the decision of the reference. The Court of Judicature was at this time extended to Malacca, and the point arose as to whether Naning was to be subject to its jurisdiction. To the answer on this point, the other question as to the government right to exercise the usual functions in that district was left; a course obviously incorrect, as it ought to have been first decided whether Naning was part of the settlement; the other question solely depending on that.

On the information derived from the Records, government determined to extend the Malacca system to Naning, as part of the settlement; and the Superintendent of Lands was sent to



make a settlement. This officer found the difficulty so great, and expected so much opposition, that he requested a large force of military to be detached to his assistance. He reported that the Punghulu and other chiefs were tenacious in enquiring whether their jurisdiction was to be interfered with; that the Punghulu offered to increase the present collections of rice from 400 to 1,600 gantangs; that a large amount of rice, fowls, &c, was collected from the Rayats by the Punghulu; that the quantity of paddy reaped yearly amounted to much more than 4,000 gantangs;\* that a combination was being formed in the neighbouring states to assist the Punghulu in resisting government; and that the Rajahs were ground down by an incredible degree of tyranny and oppression. On this the Superintendent was directed to enforce the government orders as far as possible without the aid of military for the present, till a reference could be made to Pinang. In Council there was a division of opinion, but the sending troops to afford personal protection to the Superintendent was sanctioned. The local authority declined, however, to march troops till it was made to appear that the Superintendent and Collectors were in danger. The Superintendent was so much engaged in other duty that he could not himself go up again; but a Christian Collector was sent with a number of native writers, &c, to take down the account of the collections. They were met with a universal coolness and were in consequence recalled. The question was then reserved for the Governor, who was expected soon in Malacca. This delay and hesitation had a bad effect, as it inflamed the mind of the Punghulu, and laid the foundation for the resistance which was afterwards experienced.

On the 25th February, 1829, the Governor arrived at Malacca. One of his first duties was the consideration of this question. The Superintendent of Lands was directed to address the Punghulu, pointing out the impropriety of his conduct, and requiring his presence at Malacca. Several letters passed between that officer and the Punghulu, but without any other result than adding to the embarrassment.

\* In a previous report, dated July 1827, the same officer calculated the produce of paddy at about 1,125,000 gantangs, on which the government tenth, if levied, would have amounted to 112,500 gantangs and not 400 gantangs as paid by the Punghulu.

At this juncture the Governor-General, Lord William Bentinck, arrived in the Straits, and the local Governor was called to Pinang. The proceedings had hitherto been carried on through the channel of inferior and untrustworthy officers, as the Superintendent of Lands could not himself attend personally; and it was feared that the Punghulu had been instigated in his opposition by evil disposed persons. Accordingly the Deputy Resident, the highest officer under the Resident Councillor, was deputed to proceed to Naning to hold a conference with the Punghulu. The instructions given to this officer were that he was not to insist, for the present, on the collection of the tenth, but to explain to the Punghulu the absolute right of government to the payment and that the right was only waived, not abandoned; to insist on a census of the population being made; and that he should not agitate the question as to the jurisdiction of the new Court of Judicature, and the consequent continuance, or otherwise, of the sovereign authority hitherto exercised by the Punghulu. A party of sepoy was detached for a personal guard, and the Military authorities were directed to attend to a requisition for aid, to the fullest extent of their force, at a moment's warning. On the 3rd of July the Deputy Resident left Malacca, and arrived the same day at Sungie Puttye, on the borders of Naning. There was a Government bungalow at this place, and here he fixed his headquarters. A letter was despatched to the Punghulu, informing him of the arrival of a high officer from Malacca, and requesting his attendance. The following morning the Punghulu came, attended by his chiefs and by a large party of armed Malays. He was evidently very much agitated and discomposed for some time, till the Deputy had convinced him that there were no designs against his personal liberty. The Deputy explained the views and wishes of government, and expressed regret that the Punghulu had been taking such an improper course; that government considered Naning as part of their territory, and consequently that it was subject to their authority in the same way as Malacca; and that the Punghulu instead of being an obedient subject was in open rebellion. The Punghulu replied that he had been in a state of terror for some time; that all manner of reports were constantly coming up from Malacca to the effect that he and his chiefs were

to be seized and transported; but that now, having heard from a responsible quarter the real state of affairs, he and his people would give every attention and respect to the wishes of government; that the census would be at once commenced; while on other subjects he would wait the directions of government. After this universal cheerfulness prevailed, and all recovered from their alarm. The Deputy proceeded on to Taboo, where he had further opportunity of conversing with the Punghulu, at his own residence. He found that the chief cause of dissatisfaction on the Punghulu's part, was the fear that the establishment of the new Court, about which the most exaggerated reports were prevalent, would destroy his authority among his people, by taking away his right to adjudicate in all matters of complaint. In his report to government, the Deputy Resident stated that it would be extremely difficult to divest the Punghulu of his Judicial authority; as, from the great respect and veneration entertained towards him as a saint, the people would, to a man, arm in his favour; and further, there was every reason to believe that the late insubordination on the part of the Punghulu, had been caused by the machinations of evil disposed persons in Malacca, who took every opportunity of abusing his mind with the most exaggerated reports of the intentions of government towards Naning.

After this meeting matters went on quietly pending the arrival of the Governor from Pinang. The census was taken, with the assistance of the Punghulu and chiefs; and the other matters in dispute were allowed to remain in abeyance. On the arrival of the Governor on the 18th of October, a letter was addressed to the Punghulu requiring his presence in Malacca, but, unfortunately, by this time the good effects of the Deputy Resident's mission had been done away with by the sinister efforts and insinuations of the Punghulu's disloyal advisers. He positively declined to come to Malacca. This was a final answer and it afforded the Governor an opportunity for insisting on active steps being taken to reduce the Punghulu to submission.

By his refusal to come down to Malacca after repeated summonses the Punghulu Dool Syed was in open opposition to Government; and prepared to resist by force, any attempt on Naning. He had foreseen the turn matters were likely to take

and had made preparations accordingly. His application to the neighbouring states for assistance had been favourably received, and he had unbounded influence over his own people. The sanctity attached to the possessor of the miraculous bajoo and sword \* had been turned to such account as completely to outweigh the evil effect of his numerous acts of tyranny and oppression.

Mr Fullerton after a full consideration of the case in all its bearings, founded on the information laid before him, came to the conclusion that an armed force ought at once to be sent into the interior to bring the Punghulu to reason. Preparations were made accordingly. The arsenal was put in requisition and the troops prepared to march; when, at the last hour, the expedition was countermanded. There was a difference of opinion in the Council. Those possessing intimate local knowledge could not be convinced, from the evidence laid before them, that Dool Syed and his predecessors were sufficiently within the category of subjects, after having so long exercised sovereign authority, even to taking of life, to warrant the sharp practice now proposed; and in consequence a more quiet course of negociation was recommended to be carried on by properly qualified persons. The governor, finding this opinion not to be weakened, at last, as the expedition was on the point of starting, referred the question to the Supreme Government, expecting to receive an answer in two months at farthest. Unfortunately the matter was referred from Bengal to England, and the delay proved to be a most serious evil. No answer arrived for two years, during which time the local government was broken up, and Mr Fullerton, the former governor, had retired from the service.

The English power had not been directly exercised in these seas for ages. It had been taken on trust, as reflected from India and very recently from Burmah; and now on the first appearance of oppo-

\* A concubine had been carried off from the Palace of Abdul Jalil, King of Johore, by a Malay who fled with her to Malacca. The king wrote to Inche Aroom, the Captain of Malays at Malacca, an account of this terrible outrage and requested his assistance to revenge the Royal honor. The Inche employed a Naning man named Juara Magat and he krissed the man, while the woman was sent back to Johore. In gratitude for this service the king recommended Juara to the Dutch and on the next vacancy, being eligible, he was made Punghulu of Naning. The king also presented Juara with a sword, called the "satiated serpent," and a silk jacket, both of which have descended as regalia, and are supposed now to confer on their possessor a supernatural power.

sition, the authorities hesitated. That this hesitation arose from any cause but fear, was not considered for an instant as possible, and, in consequence, a grand combination of all the surrounding states was formed to assist the Punghulu, who became so elevated at the apparent weakness of the Europeans and at the unanimous support and encouragement of the native allies, that he threw off the air of reserve and respectful resistance which he had hitherto worn. On a groundless pretext, in the month of October, 1830, he crossed the frontier of Malacca proper and seized a portion of land which had been granted to and held by Inche Surin, a Malay. The Inche came to Malacca, produced his title deeds, and requested to be re-instated. Had the Court of Judicature been sitting at the time, this would have brought matters to a crisis, as, when judgment had issued, the civil power must have protected the officers of the Court in the execution of process; however as no successor had yet arrived to replace Sir John Claridge, the government was not placed in that dilemma. A letter was sent to the Punghulu pointing out the impropriety of his conduct, and requiring him to restore the ground; to this letter a haughty and insolent reply was returned. The answer to the reference concerning Naning had not yet arrived from England, the local government had lately been abolished, and the incorporated settlement was under a resident at Singapore, and as he could not assume any responsibility no active steps were taken concerning the Punghulu. In July, 1831, authority arrived from England to march troops into Naning, when 150 sepoys and a few native artillerymen with two 6 pounders were ordered to proceed to seize the Punghulu. Owing to the want of supplies in the arsenal it required 16 days to equip this force, during which period of delay Dool Syed was enabled to make his arrangements.

On the 15th July, 1831, a proclamation was issued by the Governor\* informing the inhabitants that a force was going up to capture the Punghulu of Naning on account of his rebellions conduct, requiring them to remain quietly in their houses, and promising that they should be on the same footing as the people of

\* In order to avoid confusion in this narrative I continue to use the titles of Resident Councillor and Governor, although they were not restored till the 10th April, of the following year.

Malacca, except as to the tenths, which should not be levied at present; that new Punghulus would be appointed; and finally that they all knew that Naning belonged to the Company, and that it was only the Punghulu's rebellious conduct which had brought this infliction on him.

On the 6th of August the force marched, accompanied by the Assistant Resident as Civil Commissioner. Provisions were sent by the river, to be landed near the borders of Naning, and thence carried by coolies. The boats grounded far short of their intended destination, and on their return to Malacca the next morning caused a panic; being mistaken for the Malays, who were supposed to have got into the rear of the advancing force, and thus were coming to sack the town. In marching this force the civil and military authorities were entirely without information, nothing was known of the country or of the opposition likely to be made. The spies employed reported that the Naning people were entirely in favour of the English and against their own chiefs. It was afterwards said that these spies were chosen with so little care that they were, to a man, in the interests of the enemy and that in point of fact the whole population of Malacca and Naning were strongly in favour of the Punghulu and chiefs, who had numerous relatives and connections in Malacca, while the government could hardly command the loyalty of their own paid servants. On arriving at the boundary of Naning, two muskets were fired at the force. This show of opposition was made the pretext for burning down the houses of several persons who had made themselves obnoxious. With the exception of a few shots, now and then, from the jungle, no opposition was experienced, till they arrived at Bukit Seboasoh, where a sepoy and coolie were wounded. By this time however the rigor of the force in destroying the houses of the chiefs had roused the feelings of the Malays and they came out in numbers to take vengeance. The provisions had not come up from the boats, and on the fourth day, their supplies being exhausted and not having any reliable information, the officer in command determined to retreat, in which course he was confirmed by the receipt of urgent calls from Malacca to return for the protection of the town. The latter part of their advance had been made by a narrow path, in thick

jungle, and now they felt the full effect of their needless severity in burning the houses of the chiefs. The Malays had turned out with their axes, and, cutting down immense trees, had blocked up the roadway so that the officers were obliged to abandon the heavy baggage and to retreat as expeditiously as possible. On arriving at Sungie Puttye, one of the Government bungalows, which was stockaded, they halted till the 20th August, when the re-inforcement arrived from Singapore. This place was held till the 25th when the whole force was ordered to retire to Malacca. In the retreat the two six-pounder guns were lost in the jungle from the difficulty of conveying them over the fallen trees.

After the retreat, Dool Syed wrote down complaining that the Assistant Resident had come into Naning with sepoy, and shot down a Panglima who had been sent as an honorary escort to receive him. To this a dignified but moderate reply was made, that the Punghulu had forfeited all claims to consideration, but still, if he came down to Malacca, matters might yet be arranged, without inflicting certain misery on him and his people; but the Punghulu was infatuated by the advice of his false friends, and refused to listen to any terms; on the contrary, he commenced to make incursions and to levy contributions in the Malacca territory.

The opposition had now changed into a dangerous rebellion, which government could not tolerate. Requisitions for a large force were made to Madras and Pinang and pending their arrival the troops were confined to the neighbourhood of the town.

On the 25th August, the detachment left at Sungie Puttye was ordered down, and the whole attention of the force occupied for the present in the defence of the town.

On the 25th September, seven men, four of them of consequence in Naning, were brought down as prisoners by one of the Government Punghulus who had taken an active part in favour of Naning, but on seeing matters going too far, now found it convenient to alter his side. These prisoners had been sent into the Malacca territory to levy contributions, and they were ultimately transported to Bengal as state prisoners.

On the 24th October, the Punghulu and Chiefs wrote an appeal to the King of England, complaining of the treatment they had

received at the hands of the local government. In the month of January, 1832, re-inforcements arrived from Madras, and several detachments were sent on in advance to occupy the post still in possession. Colonel Herbert, the Commanding officer, left for the field on the 2nd of March, 1832, and the second campaign opened. After the retreat of the last expedition a number of Malays had been employed to cut down the jungle to such a distance, on each side of the road, as to prevent further blocking by felling trees across the path. In this duty the men had been protected by an armed party of Malays, but unfortunately the work had not been conducted with spirit; and, in consequence, the troops now were obliged to cut their own way, by slow and painful toil, through the nearly impenetrable forest for some miles; a labour which might have been avoided, at least in the Malacca territory, by a little previous attention to the employment of coolies.

A proclamation was prepared by the Resident Councillor warning the people not to put their property into armed stockades as they and all found in them would be destroyed; and informing them that if any of them, while employed in their usual peaceful occupations in the villages or fields, should receive injury from the troops they might appeal to the officer in command who would redress their grievances. This proclamation was unwisely rejected by the Governor and another substituted, simply warning the people to stay at home, as all found in arms would be treated as enemies.

In the advance Dool Syed tried the patience of the officers and men by not firing first. His object was to be able hereafter, in his complaints, to say that he had only acted in self-defence and that he had not commenced the fighting.

The delay caused by having to clear the road had a depressing effect on the troops and elevated the Malays in an extraordinary degree. They now surrounded the camp, and getting into the rear, threatened the communication with town, the only source of supplies. From the nature of the country, the enemy's numbers or disposition could not be guessed at, and it was reasonably supposed, from parties appearing at different times and at distant places, that they were numerous. On the 18th April, after a serious check, the commanding officer in writing to government



reported his critical situation, being closed up and his communications cut off in the rear; he urgently requested reinforcements, stating that if they did not rapidly arrive, the force must act on the defensive. The Government Punghulus were inert and opposed obstacles to obtaining any assistance in the matter of coolies and messengers; however, by great exertions, a body of 50 armed Malays was sent up to open the road to town. The Malays were daily becoming more bold; and had now actually stockaded themselves on the flanks of the posts occupied by the troops, and the situation of affairs had become so critical that, on the 26th April, a pressing requisition was made for European soldiers from Maulmain as the nearest European garrison.

On the 30th April, a most valuable ally went up in the person of Syed Saban, a native chief who exercised a considerable influence on the future success of the expedition. Syed Saban was the son, by a female of low origin, of one of the Arab adventurers who constantly visit these countries, as priests and traders, and who enjoy high consideration and privileges in right of their country. Syed Saban early shewed signs of intelligence and superiority; but, as his mother was of low origin, and his father had not been able to acquire a recognised position, it was necessary for the Syed to endeavour to carve out a fortune for himself. His first step was to effect an alliance with some of the neighbouring chiefs; and in this he soon succeeded. He married the daughter of Rajah Alli, the Iang de Pertuan Mudah of Rambow, to whose fortunes he then attached himself. At the commencement of the Naning disturbances Rajah Alli was actively engaged against Rajah Laboo, the Menangkabow chief who had come over to assume the office of "Iang de Pertuan Besar." Rajah Laboo had brought with him from Sumatra a man of the most violent and flagitious character named Rajah Krajan, whose advice and measures proved fatal to his protector, who had before this time been obliged to fly to Malacca for protection, on being driven out of the interior in consequence of the excesses of his follower. At the commencement of hostilities, the Punghulu of Naning worked on the fears of Rajah Alli, in order to obtain his co-operation against the English, by circulating a report that Rajah Laboo had been taken

under protection by the English, and that after Naning should be subjugated, he was to be gratified by the expulsion of Rajah Alli from the interior and his own elevation to the head of the Menangkabow states. When the first expedition started for Naning, Syed Saban was sent to watch the force, and to observe if Rajah Laboo and his followers were present as asserted by the Punghulu of Naning. Letters were also sent to government to enquire into the truth of the reports of ulterior intentions against Rajah Alli. To these letters answers were sent denying the truth of such reports. Unfortunately they miscarried, not without suspicion of treachery, and although Syed Saban reported that Rajah Laboo did not accompany the force, the Punghulu was able to satisfy them that he would join afterwards, pointing out the evident insincerity of government in not denying the truth of the reports when an opportunity had been offered by Rajah Alli's letter. Syed Saban joined the Naning forces, and to his energy and talents are due the defeat of the first expedition. He it was who blocked the force by felling large trees in their rear, thus not only preventing them from receiving supplies from town, but ultimately perilling the safety of their retreat. Time, however, proved that there was no foundation for the reports about the English alliance with Rajah Laboo, and in consequence Rajah Alli and Syed Saban became alive to the true state of affairs. They had sufficient foresight to know that the struggle between the English and Naning must eventuate in favour of the former and they gave intimation that they might be detached from the confederacy, and be brought with their whole power to act against their former ally. Their objects in desiring the alliance were to secure the protection of government to place Rajah Alli at the head of the interior states; and to secure Syed Saban as his successor in Rumbow. The Syed had also a further aim; he wished to secure, with the aid of the English government, a right to levy a tax at the Lingie river, on all tin and other produce brought down that river. A meeting was arranged to take place at Simpang, a neutral territory on the Lingie river, and there on the 19th January, 1832, a treaty was agreed on which provided that Rumbow should withdraw from the Naning confederacy and should assist the English. In pursuance of this arrangement Syed Saban had now

joined the camp with his followers. Rajah Krajan had previously gone to Naning, where he took an active part in the operations against the English troops.

The effects of Syed Saban's presence and co-operation were instantly felt. Hitherto the troops had been harassed by constant attacks, and an apparent ubiquity of the enemy. The commanders laboured under the important disadvantage of a total ignorance of the country and an absolute want of even the most ordinary information. The feeling in favour of the Punghulu as a saint, warring for the faith against infidels, was so strong that nothing could induce the rayats to assist in any respect against him and it was found that the spies employed were universally false, conveying perfect intelligence to the Malays of all the movements of the Europeans; and at the same time keeping the latter in the dark as to their opponents. It had been supposed that a very large force of armed Malays was on foot, as they were felt at different times, and in all directions, but Syed Saban soon put matters on a more satisfactory position. Without giving the number of the enemy,\* he communicated information as to the days when attacks might be expected; as well as the days when the stockades would be empty. When an attack was meditated by the Malays it was necessary to collect the men previously, for the purpose; buffaloes were killed, and a grand feast given; after which they set out on the expedition. When not collected in this way for an express purpose, the stockades and other defences were left in the sole charge of the few personal followers of the Punghulu. The country was a succession of densely wooded heights, with low swampy flats intervening. The road from Ching towards Naning had not been sufficiently cleared, in the time between the first and second expedition, and the troops were now forcing their way upwards towards Taboo, the capital of Naning, by the slow process of clearing the jungle and forming their own road. Before Syed Saban's information was fully imparted to the Commanding Officer, much valuable time was lost, apparently from a want of confidence in the Syed's good faith, caused by the absence of any respectable means of communication. The presence of a

\* He says now that there were never more than 50 or 100 in arms at any one time.

Civil Commissioner who could have had the confidence of both parties, and whose knowledge of the natives would have prevented imposition, was much required; but in answer to the urgent requisitions of the commandant for such an officer, the reply was that there was no one at present available, but that the deficiency would soon be supplied.

The following extracts from the despatches of the officer commanding the troops to the Resident Councillor, will point out his position and the services of Syed Saban at this period:—

Head quarters, Sungie Puttye, 31st March, 1832.

“Suggested that as a temporary measure two Companies ‘might be called from Pinang’ if the troops were to remain in Naning; ‘the propriety of warning the Madras government to ‘hold another native Regiment in readiness.’”

On the 18th April, after a “severe contest” he “solicits that a requisition be immediately made for the following addition to ‘his force’—artillery, 3 subalterns, 2 sergeants, 30 men, and 12 gun lascars; 1 conductor, 1 sub do and 40 store lascars; sappers and miners, 2 companies; European Infantry two companies, native infantry one complete Regiment—and concludes his letter thus—“it is further a most painful duty to report that I am of ‘opinion if speedy reinforcements are not afforded me that the war ‘on the part of the British must become merely defensive’”. Those acquainted with Indian warfare, will easily know the meaning of this sentence.

Between this time and the 16th of May, when three companies arrived in Camp from Pinang, the Colonel continued to write in the same strain. Thus on the 20th April, he says—that he could make no forward movement, that even if he did take the stockades, he had not troops to keep them, that the roads across the rice fields were destroyed and filled with “ranjows” (caltrops), that all he could do for several months, would be to maintain a good position, and keep the rear open;—28th April, that he did not contemplate the possibility of advancing, even with the three companies from Pinang;—6th May, he urges that a further requisition be made for reinforcements, being of opinion, with the officer next in command, that another native Regiment and 2 companies of European infan-

try ought to be sent for in addition to those already requested on the 18th April, and he concludes the letter by describing this requisition as of "absolute necessity";—4th May that the three companies, anxiously expected from Pinang, will be of no avail beyond strengthening his position, and lightening the fatigue of officers and men, but that they cannot enable him to go on. On the 16th May the 3 companies arrived, and, on the 18th, Colonel Herbert writes that he cannot find in them anything beyond a partial relief to his overworn men, that he dreads the absence of reinforcements will protract the service, that "I look upon this force as next thing "to knocked up" but that he may find his situation widely different if the Resident Councillor would send him a strong supply of fighting men, or intelligence of a compact having been made with some of the native chiefs. Such is the picture of his position and prospects drawn at this period by the officer commanding the force.

Syed Saban arrived in camp on the 30th April. On 3rd and 14th May he performed some service, but he had not yet acquired the confidence of the Commandant, who at first was naturally doubtful of the ability of a petty chief, with a few half armed followers, to overcome difficulties which had effectually checked his disciplined and well provided force. On the 17th May, Syed Saban proposed an attack on Bukit Seboosoh, one of the chief positions of the enemy, where Dool Syed had concentrated all his efforts in erecting stockades; and to this place, he staked his reputation for supernatural power and sanctity, that the British could not advance. Syed Saban proposed to attack these lines on the 17th of May. He succeeded in getting possession of the stockades; a success which effectually broke up the confederation. Colonel Herbert had applied for the sanction of government to allow Syed Saban to make this diversion, and on the 21st May he wrote thus to the Resident Councillor—"you will have heard from rumour—"the success of Syed Saban, which appears to have been very "complete, and at present without a man having been touched. The "only point of consideration which made me backward in permitting his project without high sanction, was the conviction that I "could not assist him to any extent with my present means, and "this fact stares me now in the face, for, unless this exploit draws "off the followers of Dool Syed, it is extremely probable that, for

“ want of troops in the present sick state of the force, I cannot occupy the ground taken and victory over the stockades will be of no avail.” In this however the Colonel was wrong: once in possession of the stockades he had force to resist ten times the utmost power of the Malays, who had no possible chance, at any time, of retaking a work held by the regular troops. The blow inflicted by Syed Saban at Seboosoh was serious, and called forth the best efforts of the Malays to retake the defences; in which however they signally failed; and thereafter the war became a series of advances, till, at last, Taboo itself was taken. Syed Saban’s local knowledge and means of gaining correct information as to the enemy’s movements, enabled him to select days for attack when he could count on the stockades being very slenderly provided with defenders; a species of knowledge in which the officer commanding the force was singularly deficient.

The interior had hitherto been plentifully supplied with military stores and provisions through the five rivers, and so long as these supplies continued, it was anticipated that resistance would last; as there were no means of coercing or inconveniencing the neighbouring states. An attempt had been made to form a blockade, but the operation failed, having been from necessity entrusted to the faithless crews of local gunboats. At this juncture, however, it had become essential that some means should be adopted for bringing a pressure to bear on the neighbouring states, which were covertly assisting Dool Syed. The means were made available by the opportune arrival of H. M. S. “*Magicienne*”, under the command of Captain Plumridge. That officer, after being put in possession of the merits of the case, tendered his hearty co-operation. It was arranged that an indiscriminate blockade should be established on the Lingie and Cassang rivers, extending, however, only to the ingress of military stores at Muar river. The other two rivers, Malacca and Duyong, being within the English territory, were under the strict supervision of the local departments at Malacca. The blockade commenced on the 8th of June, and the effect was instantaneous. The inconvenience and indeed misery, which a blockade of these rivers, so easily made by the power in possession of Malacca, effect, are inconceivable in countries where life can be sustained

without external assistance. The pressure was now found to be so effectual, that petitions poured in daily from all the surrounding native states, praying that the rivers might be opened, and disavowing any complicity with Dool Syed and Nanning affairs. Finding government firm in purpose the chiefs, one by one, deserted Dool Syed, as the only means of saving themselves from destruction.

This blockade, together with the information and co-operation of Syed Saban, smoothed matters in the interior. The troops were able to advance more rapidly, and on the 15th of June, Taboo, the residence of Dool Syed, was taken, after a very slight resistance. Some outworks at a considerable distance were first carried, when the officer in command observing Syed Saban to push on towards the chief defences, followed up with his whole force, and the place fell. Dool Syed narrowly escaped. The box was found in which his regalia, the sanctified sword and jacket, were kept, but the contents had been carried off. This operation finished the war. Dool Syed, deserted by all the chiefs and driven from his capital, forfeited the veneration and belief in his fortune which had hitherto preserved for him the adherence of his people, and wandered about an outcast till February, 1834, when he surrendered unconditionally at Malacca.

When the Punghulu saw the extensive preparations being made for the second expedition, he became seriously alarmed, and sent letters to several individuals in Malacca to intercede for him; to these he received the reply that he must come down to Malacca and make his submission in person, but that his life would be spared. In February, he wrote again, promising to give up the guns lost in the 1st expedition, and to abdicate his Punghuluship in favour of either his son or nephew; to this a similar reply was given on the part of government. On the 2nd of June, he sent a message to the advance to enquire if his life would be spared; to this he received for answer that he must surrender unconditionally, and trust to the mercy of the government. On the following day, on the arrival from Malacca of a gentleman who had consented to act as negociator, Dool Syed threw himself at his feet and burst into tears, bitterly regretting that he had been led into his present situation by the councils of false and designing friends.

Unfortunately for himself, he was not yet sufficiently terrified. He asserted that he did not contemplate resisting government, but only the oppressive acts of subordinates, and offered to deliver the two guns at Sungie Pattye, the post at the boundary of Naning. An armistice was agreed on at this meeting, to allow a reference to town; but the following day it was broken, whether treacherously or inadvertently does not appear, by an attack on a post held by the troops at Parling. On the 6th, the answer to the reference arrived, to the effect that Dool Syed must bring down the guns to Malacca. This he refused to do, and operations commenced with renewed vigour. There can be little doubt that Dool Syed was misled as to the position in which he was placing himself with the British government. He was encouraged in the belief that he was in opposition to a subordinate officer only; and those who were in a position to advise him to the contrary, refrained from doing so, doubtless for reasons of their own. The expenditure of the large sums of money, necessary in protracted operations in the interior, was a bait too attractive among a population in which the European and English element was insignificant, and other private objects placed many in a position where their interests were too strongly opposed to their duty. Since this settlement was finally taken over in 1825 there has hardly been a single European inhabitant, independent of government, whose interests and feelings are in support of British supremacy; and, if it again becomes subject to any other nation, the British name and recollection will be obliterated in a day. Had there been any influential Europeans with British feelings in the settlement, or had the government officers been properly informed, the Naning war could never have occurred. It is evident, from the result of the Mission of the Deputy Resident in July, 1829, that if the policy then opened had been carried out under the superintendence of European officers, assisted by proper influences of the well disposed inhabitants, and not opposed by the the sinister efforts of aliens, Dool Syed would have been brought to a sense of his true position, and the matters in difference between him and the authorities would have been arranged on a footing satisfactory to both parties. The subsequent history of this chief may be here narrated. Government provided him with a house



and land in Malacca and gave him a pension of 200 rupees a month. The following extract from a report of the Resident will explain the rest. "He has effected the purchase of the contiguous "paddy fields, is devoting attention to the cultivation of the soil, "is turning his mind to trade, is practising as a physician, is making money. As respects pecuniary means he is certainly more "independent than he ever was at Naning; he now wears shoes, "keeps a buggy and is occasionally employing a goldsmith." The fact of his having been pensioned has done more to strengthen the influence of government among the surrounding states than the result of the war in other respects. He died peaceably in August, 1849, and his children inherit his Malacca property.

In the month of July large re-inforcements of European and native troops arrived from Madras, but as there was no further necessity for their presence, they were sent back immediately. Two Companies of Europeans were detained for a short time as a reserve, pending the arrangement of matters in the interior, as the occupation of the troops in Naning had afforded opportunities for marauders at Mount Ophir to make encroachments.

Two or three years before this time the Tumonggong of Muar died, leaving a son and successor of immature age. The country of Muar, being virtually independent of the nominal Sultan of Johor, from want of power on his part to interfere effectually, the relatives of the young Tumonggong, not being apprehensive of any opposition either from him or from the British, seized the opportunity to make themselves masters of the country, each in his own district. Two of them, Abat and Mahamat, took the districts round Mount Ophir, where they came into collision with the English on account of their claims and violent encroachments on the territory of Malacca. During the continuance of the Naning war they became so insolent and tyrannical that the country was deserted by the rayats, who were deprived of their lives and property on the slightest pretexts, and finding themselves unopposed they gradually came across the boundary, and took possession of a tract of land at Chabow which formerly had been in dispute between Malacca and Muar. The Sultan was requested to drive out these miscreants, he issued an order to the two chiefs and a force of military was sent upon to be stationed

near the borders, at Assahan and Rheim, where posts were retained for some years.

A Civil Servant was sent up to Naning, during the continuance of military operations, to act as political commissioner. He arrived at head quarters in the end of June and afterwards was authorized to hold a Court of Requests and a Police Court for the trial of cases of minor importance. This officer died on the 6th of August following, from over-exertion in the duties of his office, and unfortunately no successor was appointed to the vacancy. In the month of October, 1832, the Governor visited the district of Naning and appointed a number of Punghulus, on the same footing as those of Malacca. The old system of native government was completely abolished, and an arrangement made with a gentleman of Dutch descent in Malacca, who agreed to introduce the system of tenths, to make a census of the population, number of houses, quantity of grain planted, and extent of lands exempt under the system. For these services he was to receive an allowance for travelling expences on the usual scale and to be permitted to appropriate the tenths. It is almost needless to add that this arrangement was soon annulled as advantageous neither to government nor to the natives.

After the war was concluded Naning became in effect, what it certainly never had been before, an integral portion of the English territory; the constables and bailiffs then for the first time began to serve process there as they do in other parts of the settlement without reference to native rights or institutions. The country was treated in the same manner as the other districts. Punghulus were appointed and the Malacca land system was introduced. As the waste lands were not subject to any claim, such as those of Malacca proper, Government took possession of them, but from want of proper establishments nothing has been done in the way of granting titles or of effecting improvements. The apathy and ill success which have attended all attempts in Malacca have produced similar results in Naning, population does not increase, protection is not extended and revenue is not collected.

*Extracts from a letter from S. Garling, Esq., Resident Councillor at Malacca, to the Governor, communicating information previous to the Naning war.*

4. Malacca is bounded on the eastern border by the Cassang river, which separates us from Muar. This country is under the government of an hereditary chief, styled Dato Tumonggong, whose residence is in a village called Pangcallang Cota, not far up the Muar river. The present chief is very young, and succeeded his late father about two years ago. Availing themselves of his youth and inexperience, several of his relatives have possessed themselves of independent authority. Unkoo (or Tuankoo) Tuan, his uncle, is chief of Se Gammatt, situated on an inferior branch of the Muar river, containing about 400 houses. This chief has claimed independent jurisdiction. Inche Ahat and Inche Mahomed, who reside at Sungie Dua, a small village situated on the eastern bank of the Cassang river, not far from Mount Ophir, are distant cousins of the Tumonggong's, and are also now independent. These are the two individuals who have given us of late so much trouble at Rheim and Chohong. Since the late disturbances, which have involved the expediency of withdrawing our small detachment of sepoys from Rheim, they have seized upon all the formerly disputed land at the foot of Mount Ophir. From the inhabitants they have levied the tenth, and have driven away Inche Allang, whom we placed there as a Punghulu. This Inche Allang and Inche Barimah, who, you may remember, had possession of the land, and was obliged by us to quit about three years ago, are I believe, related to the Tumonggong; similarly with the two former. Inche Ahat and Inche Mahomed have, from their exactions, obliged the workers of the small gold mines of Gemmy, at the foot of Mount Ophir, to abandon their labors. These two men are disposed to render every aid in their power to the Punghulu of Naning, and have had the boldness to threaten that they would stockade Ayer Panas. Unkoo Tuan sent some arms to the Punghulu of Naning. I am not aware that the Tumonggong rendered any aid, and I am inclined to believe he would prefer remaining on friendly terms with us.

5. From Mount Ophir to Quallah Si Marabow, on a branch

of the Lingie river, is an irregular line running in an average direction nearly due west. To the northward of this boundary and to the westward of the Lingie river, are the governments of Johol, Rumbow and Sungie Ujong.

6. In speaking of these countries, I am unavoidably led occasionally to associate with them the district of Naning. But in doing so, I am not to be understood as implying that the Punghulus of Naning for many years past have claimed to sit as members of their council, or to be consulted as a party whose interests remain inseparably united with theirs. I must further observe, that I cannot vouch in every instance and to the very letter, for the truth of all the details contained in the notes which follow. I have diligently set myself to gather what information I could, and I feel satisfied as to the general authenticity of all that is most material.

7. Sungie Ujong, Rumbow, Johol and Naning, are each governed by a Punghulu Belantaye and four Sookoos. These four Punghulus derive their origin from Menangkabow. The line of succession observed is similar to that prevailing in the royal family of Pagarooyong in Menangkabow, which is through the sister's son, and not the son of the deceased ruler.

8. Over these four Punghulus is a titular chief, designated Iang de Pertuan Besar. This chief is not succeeded by any member of his local family. The selection is vested in the Menangkabow ruler, from whom the individual so selected brings, in token of his appointment, a document termed "Trompah", containing the genealogy of the Pagarooyong royal family, with which the Iang de Pertuan Besar of our interior must be necessarily connected by blood. This chief resides at Sri Menantie, where an Istana is built for him; but he does not, however, possess any regalia, neither has he any people or territory which he can claim as immediately his own. Menangkabow has no practical ascendancy over the councils of our interior; neither is any tribute or periodical present paid or sent to the ruler of Menangkabow. The supremacy, if such it can be termed, is simply titular. The Sultan of Johore is no longer considered as the head of these states.

9. At Sungie Ujong there exists another officer, styled Raja de

Raja, or the Raja Shabandar. This functionary has jurisdiction in all matters connected with the River, and the trade carried on by water carriage. His office is of considerable importance, in consequence of the extensive tin trade carried on at Sungie Ujong. Sungie Ujong is the least populous and powerful of the four districts, although the chief of it is considered as "Elder Brother" of the four Punghulus and takes precedence of them.

10. Rumbow presents a political variety. This district is divided into Rumbow Uloo (the principal village of which is Chumbong) and Rumbow Ilir (the principal Settlements being Penagy and Bandaar.) Each division has its four Sookoos. The Punghulu Belantaye, or "Punghulu Rumbow" presides in Rumbow Uloo, but has always had equal jurisdiction over Rumbow Ilir. At the last election, however, Rajah Allie (of whom I shall presently speak) managed to bring about the appointment of a second Punghulu to preside over Rumbow Ilir. The person elected is named Pakat; and it is supposed that on his death he will not be succeeded by another, particularly as Rajah Allie's interests have of late been warmly supported by the Punghulu Belantaye of Rumbow Uloo. A further innovation has since obtained in the Government of Rumbow, by the nomination of an Iang de Pertuan Mudah. This chief ranks next to the Iang de Pertuan Besar. He has no regalia, neither has he any people or territory of his own, being in this respect as powerless and helpless as the Iang de Pertuan Besar. It may be here noticed, that the terms "Punghulu and four Sookoos" mean the Punghulu of Rumbow Uloo and the eight sookoos. Timmerman Thyssen, the late Dutch Governor of Malacca, entered into treaty with Rumbow in 1819. The treaty is dated 5th June, and is signed by Rajah Allie, as Rajah of Rumbow, Lellah Maharajah, as Punghulu, and Gempah Maharajah, Muarbangsa, Sangsorah Palawan and Bangoah Balang, as Sukoos.

11. Johol is the most powerful of the four states, Naning, as stated in para. 6, is not longer a necessary portion of the union.

12. There are other places and chiefs subordinate to Punghulu Belantaye of which the subjoined is a list. The term Punghulu as applied to the subordinate chiefs, is unconnected with any modifying epithet, whereas the word "Belantaye" is understood as

an affix to the same term when speaking of the four principal Punghulus.

Under Sungie Ujong are Lingie and Terachie, in part. The land of Lingie is an integral part of Sungie Ujong, but the original founders of the colony removed from Rumbow. The natives speak of the father of Lingie as deriving his origin from Sungie Ujong and the mother her's from Rumbow. The Chief of Lingie is styled "Dato Mudah" and is without Sookoos for reasons set forth below. Terachie is situated on the boundary between Sri Menantie (which is subject to Johol, as mentioned below) and Sungie Ujong. There are therefore two bands of ampat sookoos, as at Rumbow (para. 10) one presiding in each division. The Punghulu resides on the Sri Menantie side. The inhabitants are believed to be descendents of people from Menangkabow.

Under Rumbow are Tamping and Caroo, at each of which districts are a Punghulu and four Sookoos. Lingie also is partly dependent upon Rumbow, or at least acknowledges titular allegiance, as stated above. Under Johol are Sri Menantie, Pondong Passir, Jumpool and Gimince (whence the principal part of our gold is procured), and Terachie in part, as stated above. At each of these places are a Punghulu and four Sookoos. Sri Menantie is the residence of the Iang de Pertuan Besar.

Naning has no dependencies and certainly none which are not subject to our ascendancy.

13. The mode of succession on vacancies is somewhat as follows:—

The Iang de Pertuan Besar (or as he is sometime termed, the Rajah Besar) he succeeded as noticed in para. 8. Owing to family quarrels, to the weakness and the ignorance of the person last sent from Menangkabow and possibly the non-interference of our government, the course of succession has been recently interrupted. Rajah Laboo now at Malacca possesses the "Trompah," and is styled Rajah Pagaruyong (the capital of Menangkabow) or Iang de Pertuan of Sri Menantie. The Iang de Pertuan Besar cannot assume office until he is recognized by the Punghulu Belantaye.

The Iang de Pertuan Mudah (or as he is sometime styled Rajah Rumbow or Rajah Kichil) is considered as elective by the Punghulus, Sookoos and people of Rumbow and subject to the confir-

mation of the Iang de Pertuan Besar. He resides at Bandaar, a villags situated on the Rumbow branch of the Lingie river, rather higher up than Qualla Si Marabow.

The Punghulus Belantaye are succeeded, as already noticed, by sister's sons, selected by the Sookoos and people, and confirmed by the Iang de Pertuan Besar. The Punghulu of Naning cannot properly assume office without the previous sanction of the European authorities at Malacca, as the Rajah Besar of Pagaruyong can have no voice in the election, nor has he any titular controul over the affairs of Naning.

The subordinate Punghulus, the Sookoos, the Rajah de Rajah of Sungie Ujong and the Datu Mudah of Lingie are all elective. The Punghulus are elected by the Sookoos and people, and receive the sanction of the Punghulu Belantaye immediately superior. The Sookoos are usually nominated by the Punghulus, but in strict regard to the general sense of the people. The same may be said of the offices of Rajah de Rajah and Dato Mudah. These two offices and that of Punghulu are nevertheless usually preserved in the same family, if not in respect of blood, at least in regard to connection.

14. There is considerable difficulty in correctly ascertaining in what the revenues consist, and upon what general principle they are distributed or appropriated. It has been noticed above, that the two Iang de Pertuans are without regalia, people or territory; neither have they any certain revenue. The Iang de Pertuan Besar levies fines on offenders in cases adjudicated by him, consisting of disputes between rayats of different districts, and of matters especially submitted for his judgment by the Punghulus. The Iang de Pertuan Mudah appears to enjoy all the fines arising out of differences where Rumbow is concerned, as in such cases they are submitted for his own decision. Both the Iang de Pertuan expect contributions (called "poon-gootaro" or gathering) on occasion of marriages, births and deaths in their families, or on any political emergency.

The Punghulus levy fines in cases adjudged by themselves, and are aided by contributions, something after the manner obtaining with the Iang de Pertuan. The Punghulu and Rajah de Rajah at Sungie Ujong and the Dato Mudah of Lingie,

enjoy considerable advantages from the tin mines. The Punghulus of Johol and Giminche reap something from the gold mines. The Punghulu of Naning, in addition to the usual levies, receives annually from each dwelling house 5 gantangs of paddy, 2 fowls and a cocoanut.

The Sookoos partake in the fines and emoluments received by the Punghulu, and are assisted when making feasts in their families on special occasions.

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The following are said to be the places immediately on the boundaries between Rumbow and Malacca. The lands of Naning are immediately contiguous to those of Rumbow :

Quallah Si Marabow. The junction of the rivulet Si Marabow with the Rumbow branch of the Lingie river. There is here a small village standing partly in Rumbow and partly in Naning.

Ayer Belantaye. A swamp.

Ramooningh Chandong. A tree stands here.

Lanjoot Manis do. do.

Padang Cachar. A plain with a Chachar tree. In this plain the Malacca and Rumbow authorities have occasionally met for political correspondence. The plain is near the Taboh and Cherane Putih, the residence of the Punghulu of Naning.

Kubor Goonjaye. Here is a mound of earth, raised over the supposed grave of a Portuguese of rank named Goonjaye.

The foot of Tamping hill. The hill is on the Rumbow side.

Tamping Tengah. A village belonging in part to Rumbow and in part to Naning.

Dusoon Pringit.\* An orchard of fruit trees and a house on the Naning side.

Dusoon Capur. An orchard and houses as above, partly in Rumbow and partly in Naning.

Dusoon Soonggar. do. do.

Bukit Putoos "Divided Hill". The boundary line runs between the two hills.

Durian Dua Batang. Two durian trees on each side. They are replaced when dead by others being planted.

\* The term "Pringit", signifies a Portuguese. The word intended is "Farinçoe". The Malays experience difficulty in pronouncing the letter F.



A line drawn from Uloo Tabong to Uloo Batang Malacca, both of which are on the Malacca side.

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The titles granted of old by the Sultan of Johore, are said to be as follows :—

**Bandahara.** This is the noblest. It appertains to the chief of Pahang. He places the crown on the head, or the chain over the neck of the newly inaugurated Sultan. Without his and the Tomunggong's concurrence the Sultan cannot be recognized as such. The Bandahara is said to have jurisdiction over all affairs connected with the waters of the sea.

**Tomunggong.** He is said to have jurisdiction on the islands. The term Tuanku (or Unkoo) is prefixed to this title. There is a secondary title styled "Dato Tomunggong" which is borne by the chief of Muar.

**Calana.** This title supposes to have jurisdiction on the main land. It was conferred on the chief of Sungie Ujong.

**Pangawa.** A title applied to certain members of the royal blood. One used to be stationed at Rhio and another at Linggin.

**Rajah Mudah,** the Sultan's Deputy at Rhio.

**Punghulu.** This is an ordinary title. The four Punghulus of Sungie Ujong, Rumbow, Johol and Naning, by way of distinction are styled Punghulu Belantaye. The term "Dato" is usually prefixed to this title.

**Sookoos,** are the heads of tribes.

Since the Sultan of Johore has withdrawn his active control from the adjoining districts, a variety of innovations are becoming prevalent in respect of the titles borne or claimed by various Chieftains. The Tomunggong of Muar is properly "Dato Tomunggong". The custom obtains of styling him "Unkoo (or Tuanku) Tomunggong". His uncle at Se Gammat is no other than "Inche Tuan", but he receives the more honorable appellation of "Unkoo Tuan". The Tomunggong's relatives, Inche Ahat and Inche Mahomat, claim the title of Rajah, &c, &c.

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Gunong Ledang or Mount Ophir, is principally situated in the Muar territory. The small gold mines of Gemmy, mentioned in para. 4, are on the Muar lands. From thence to Uloo Batang

Malacca is the boundary line between Malacca and the lands of Johol. From Uloo Batang Malacca to Quallah Si Marabow separates Naning from Rumbow. From Si Marabow, the Lingie river marks the boundary between Malacca and the lands subject to the Punghulu (or Calana) of Sungie Ujong. The westward bank of the Lingie river is crowned with jungle or uncultivated lands as far up as the Lingie colony under Inche Cattas.

The original chiefs of Sungie Ujong, Rumbow, Johol and Naning, emigrated from Menangkabow, and received grants of land in the interior from the Sultan of Johore. The following titles were conferred by the Sultan, viz. :—

Dato Calana Puturoh, on the Punghulu of Sungie Ujong, by virtue of which he is termed the "elder brother" of the four. He takes precedence of them. He is also said to have a superior proprietary right in the soil.

Lella Maharajah, on the Punghulu of Rumbow.

Sutiya Maharajah, on the Punghulu of Johol.

Si Rajah Merah, on the Punghulu of Naning.

The history of this last title is said to be as follows:—In the early part of the last century the Sultan of Johore wrote to Inche Aroom, the Captain Malay, an officer of considerable local authority and general influence at that period, complaining against one Gampa de Langha, who had inveigled away one of his concubines, and with her had taken refuge at Naning. The Sultan required that this man should be put to death. The Captain Malay concerted with a man named Juwarra Langgang of Naning. This man consequently slew Gampah de Langha, and the concubine was returned to Johore through Inche Aroom. The gratified Sultan transmitted to Juwarra Langgang a silk bajoo, a sword and two slaves (a boy and a girl), and conferred upon him the title of Si Rajah Merah. On the death of the incumbent Punghulu of Naning, Si Rajah Merah, although not of the tribe from whence the Punghulus were selected, was, through the influence of the Captain Malay, invested with the office of Punghulu; and it has continued in the same family ever since. On this occasion he was presented with a gold mounted stiok.

The silk bajoo and the sword are still in the possession of the Punghulu. They are considered as peculiarly sacred, and as imparting sanctity to their possessor. Once a year they are brought out. The sword is then cleaned by the Punghulu. He holds the bajoo extended over smoking incense, and the Sookoos and people bow to the earth, repeatedly exclaiming "Doulat" (Holy!)

I am informed that of the descendants of the two slaves sent to Juwarra Langgang, as mentioned above, there are now existing about 300 persons. They are no longer viewed as slaves, but are considered as especially devoted to the interest of the Punghulu, to whom alone they are amenable, having no concern with, and being in no manner subject to the jurisdiction of the Sookoos. They are called "Orang Tallah" (people presented) and their head man is termed "Sookoos tiga Nènek."

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The law of succession in Menangkabow, referred to in the context, is said to have taken its rise from the following incident.

The Iang de Pertuan or Sultan of Pagarooyong (the capital of Menangkabow) built a large vessel, but unexpected and seemingly invincible difficulties were opposed against every attempt to launch her. The chief dreamed that his efforts would succeed only in case a pregnant woman of the royal blood would lie her length under the keel of the vessel. His daughter refusing to meet his wishes, the chief addressed himself to his sister. She complied and the consequent reward was that of establishing the right of succession in the sister's son.

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About 20 years ago, overtures were made by several Chinese to Inche Aman, the father-in-law and predecessor of Inche Cattas the present Dato Mudah of Lingie. Their object was to undertake the working of the tin mines at Sungie Ujong. The tin must be brought in small boats from the mines as far as Lingie, and there it may be transhipped. Hence the Datto Mudah reaps his advantage. Kawal, uncle of the present Calana, was then Punghulu of Sungie Ujong. Kawal agreed that the mines should be worked. Each time the tin was melted, whether much or little, whether the produce of one mine or the accumulated produce of several, he was to receive 3 bahars of tin (of 3 piculs each) at the

rate of 30 dollars per bahar. For each mine the sum of 6 dollars was to be paid to the owner of the ground.

The Chinese commenced their labor on funds provided by the Dato Mudah. This chief obtains the funds from the merchants of Malacca. He has been accustomed to engage with certain individuals at Malacca, that all tin passing down the Lingie river shall be consigned to them. In return he receives an annual present. He is said to have received so large a sum as 2,500 dollars, of which 1,000 dollars were reserved for himself, 800 dollars were yielded to Calana, 400 dollars to Rajah de Rajah, and 300 dollars to Canda Allie and Inche Mahomed (who were concerned in the original founding of the Colony,) and some other individuals. Since the disturbance, of which an account is subjoined, this monopoly has ceased. Dato Mudah now contents himself with levying 1 dollar per bahar on all tin which enters or passes Lingie.

In 1828 there were about 600 Chinese miners, divided into ten Kongsees or companies. They latterly seemed to have presumed upon their number, and by their conduct gave great umbrage to Calana and Rajah de Rajah. In consequence of some misconduct with a woman at Terachie, the natives about two years ago rose upon a party of the Chinese and murdered one of their number. Their countrymen at the Sungie Ujong mines, availing themselves of the absence of the Calana, who was then at Sri Menantie on the business of the Iang de Pertuan, proceeded in a large body towards Terachie. They were met by a party of the Malays and compelled to fly. They were pursued to Sungie Ujong, attacked and many were killed. The Chinese abandoned the mines, and their property was confiscated. Dato Mudah thereupon represented to Calana the serious difficulties in which himself and the Lingie people would be involved with the Malacca merchants, whose funds were largely involved in the tin speculation on their responsibility. The Calana consented that the tin yet in the mines (Timah Carangan) and the Tin Ore (Timah Bijé) should be given up. The melted tin (Timah masak) found in the houses, amounting to about 18 piculs, was however confiscated,  $\frac{4}{5}$  of which were to be given to the Iang de Pertuan Besar, and the remaining  $\frac{1}{5}$  to be reserved to himself. Some of the Chinese were subsequently induced to return to the mines. A

fresh engagement was to be made; but thus far nothing has been concluded. The Calana has proposed that he shall receive \$100 for every Chinese dwelling house, with a dollar for every bahar of tin, and shall reserve to himself the opium monopoly. The Rajah de Rajah was also to receive half a dollar on every bahar of tin:

Prior to 1819, during the course of which year Bahogoh, the Punghulu of Rumbow, died, it seems that there was but one Punghulu at Rumbow. There were then appointed two, viz:—Renneh and Pakat, nephews of the deceased Bahogoh. Renneh was appointed Punghulu Belantaye of Rumbow Uloo (de darat), and bears the title of Lella Maharaja, and Pakat was declared Punghulu of Rumbow Ilir (or de Baroo.)

The selection of a Punghulu from the regular family is vested in the eight Sookoos. On the death of Bahogoh, the four Sookoos of Rumbow Uloo announced Renneh as the successful candidate. The Sookoos of Rumbow Ilir, under the influence of Rajah Ali, declared Pakat as Punghulu. His title is Sidire Maharaja. As Pakat resided near Bandar, the village residence of Rajah Ali, this chief would gladly have secured to him the undivided Punghulu-ship. To this the Sookoos of Rumbow Uloo could not consent, very probably vexed at the preference which Rajah Ali had shewn for the Sookoos of Rumbow Ilir when treating with Timmerman Thyssen. Of late, the sentiments of the parties have changed: Renneh has sided with Rajah Ali and Pakat is opposed to him. At Pakat's death it is probable he will not have a successor, as his nomination was anomalous and he is not a favorite.

The office of Iang de Pertuan Mudah is of no long standing. Rajah Itam, the predecessor of Langgang Lawoot, (the late Iang de Pertuan Besar, who died in 1824) married the daughter of Rajah Assil. Rajah Assil was the son of Rajah Adil, the immediate predecessor of Rajah Itam as Iang de Pertuan Besar. Rajah Adil married a Rumbow woman, by which marriage he had issue the above Rajah Assil and a daughter. On the death of his wife Rajah Assil married a woman from the family of the Rajah of Jalaboo, most probably the sister of the Rajah. By this marriage Rajah Adil had a son named Rajah Saboon, and subsequently to the death of his father, the people of Jalaboo elected Rajah Saboon their

king. The Punghulus Balantaye and the Rumbow Sookoos being consulted, they consented that Rajah Assil should be elected Rajah of Rumbow, and be styled Iang de Pertuan Mudah. Rajah Assil had four sons and two daughters. One of the daughters was married to a Bugis chief, from which marriage sprung Rajah Ali, the present Rajah Rumbow, or Iang de Pertuan Mudah. Rajah Ali is said to have concerted with a piratical chief against his grandfather's dignity, if not against his life. Having failed in the attempt he retired to Sungie Nipah.

The other daughter was married at first to Tuanku Seh (since dead, leaving one child). She latterly retired to Lingie. From thence she was afterwards invited to Sungie Ujong and married to Rajah Laboo, by whom she has several children. Rajah Ali is apprehensive of her resentment should Rajah Laboo succeed as Iang de Pertuan Besar.

The son, named Rajah Hadjee, fell in love with the daughter of a celebrated Hadjee, who was related to Renneh (now Punghulu of Rumbow). The Hadjee refused to give up his daughter, and Rajah Hadjee succeeded in carrying her off to the Istana (or place of his father's residence). Kassip, the Punghulu of Rumbow, complained to Rajah Assil, who either could not or would not satisfy him. A rupture ensued. The Punghulus and Sookoos sided with Renneh. I am told that in the interior it is not considered correct to dethrone or to fight against a chief, unless a chief of similar or equal rank leads the party. In the present instance a deputation was sent to Rajah Ali. He consented to be their leader. By negotiation, Rajah Ali prevailed upon Rajah Assil to vacate the government, and to retire to Naning. It is believed that Rajah Ali swore to re-instate his grandfather, so soon as matters were somewhat quieted. Rajah Hadjee quitted Rumbow with his wife and came to Malacca. Subsequently he abandoned her. She returned to Rumbow. He persevered in bad habits and practices and became a neglected vagabond.

The Punghulus and Sookoos having been prevailed upon to elect Rajah Ali as Rajah Rumbow, Rajah Assil discovered that he had no hope in his own abstract pretensions. He came to Malacca, and addressed himself to Captain Farquhar, the Resident. It was at first intended to support him against Rajah Ali, under

the belief that government were virtually bound to do so by treaty. The Pinang authorities were against interference, and Rajah Assil was thrown upon his own resources. He is now dead.

Rajah Ali does not feel himself quite secure. His father being a Bugis, he is viewed as the son of a foreigner. The pretension of Rajah Cronjan and the animosity of his aunt, who is married to Rajah Laboo as above noticed, rendered Rajah Ali somewhat anxious.

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About 50 years ago, five men named Inche Aman, Inche Mahamed, Canda Allie, Inche Jahoodin and another whose name I cannot discover, originally men of Rhio, who had emigrated to Penaji in Rumbow, removed with their families to Lingie, where with the consent and under the guaranty of Calana they founded the present colony of Lingie. It is situated about 2 hours row from the junction of the Rumbow branch with the Lingie river, and about 4 hours row from the sea. The land was covered with jungle, as is the case with the surrounding lands and the ground between Lingie and the sea. There may now be about 100 houses. The whole of that part of the country belongs to Calana. He appointed Inche Aman the local chief under the designation of Dato Muda. He has no Sookoos or ministers. Calana adopted this plan instead of nominating Inche Anam Pungulu with Sookoos, as this would have required the sanction of the other Pungulu, and Inche Amam and his followers being of Rumbow or intermarried with the people of that district, the chief of Rumbow might have enjoyed too much influence in the affairs of Lingie.

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There are gold mines at Gominche which are worked by Chinese and Malays. For each person working at the Gominche gold mines, the Pungulu of Gominche receives a mayam (or 3-320th of a catty of gold.) That chief visits the mines once or twice a year, and on such occasions he receives a small present from each. The Pungulu of Johol, who is the superior of the local chief, does not derive any settled revenue from the mines. He sends annually 2 or 3 buffaloes to the mines as a present and they return to him a tahlil of gold for each.

. There are a few tin mines in Gominche of small value.

About the year 1758 the Sultan of Johore mode over to the Dutch authorities his interest in Rumbow and all the interior districts connected with the government of the four chiefs of Soongie Ujong &c, with the understanding that his own name instead of that of the Sultan of Rome (or grand signior) should be mentioned in the prayers offered up in the Mosque.

The Punghulus in the interior are said to have represented to the Sultan of Johore, that as he had withdrawn his right of supremacy, they wished to have as their titular head some native chief from Menangkabow, from whence they derived their origin. The Punghulus accordingly communicated with the ruling authorities in that country, and an individual connected by blood with the royal family of Pagaruyong was consequently deputed. The credentials produced by this chief was a document termed "Trompah".

The chief so deputed was to present himself and produce his credentials, in the first instance, to the local authority at Malacca. This practice has of late years fallen into disuse. Lenggang Lawoot, who succeeded about 1813, passed at once into the interior without regarding the usual practice. Rajah Laboo in 1828 did the same. Rajah Radin is now recognized as Iang de Pertuan Besar, although no official communication on the subject has been made to us. This is the less called for of late years, as we have studiously avoided all interference with the politics of the interior. This titular chief cannot, however, resume authority until he has been accepted and acknowledged by the principal chiefs of Sungie Ujong, Rumbow and Johol. Naning has scarcely any thing to do in the affair, in consequence of her connection with Malacca.

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## BIMA AND SUMBAWA.\*

By H. ZOLLINGER.

## Chapter I.

## FORM AND NATURE OF THE COUNTRY.

1. *Surrounding Waters. The Sea, Bays and Straits.*

THE Island of Sumbawa is to the South completely washed by the Indian Sea; to the North by that part of the Indian Sea which is properly called the Celebes Sea. To the West it is divided by the Strait of Allas from Lombok, and to the East by that of Sapie from the country of Mangareij and its numerous neighbouring islets.

The Strait of Allas is less used than those of Lombok and Sapie, on account of the numerous islands lying in it, which are dreaded, although without cause, for they are close to the shore and offer no real obstruction. The current is less strong there than in the Strait of Lombok, and generally runs during the east monsoon towards the south, and during the west monsoon towards the north,—thus in an opposite direction to the wind.

The following bays in the Strait of Sunda lie on the Coast of Sumbawa. Beginning from the south, the bay of Chereweh, in which are two small islands. Still further towards the north, and only separated from it by a mountain, follows the bay of Taliwang called Kerta Sahari. Both bays have favorable anchoring ground, and are good places of shelter in the east monsoon. I have heard it said, however, that high seas are sometimes experienced in the last. Rivers fall into both bays and afford a supply of water. Provisions can also be procured in the villages of the same names. Taliwang, however, lies at more than an hour's distance from the bay. Chereweh is also known by the name of Labu Ballak.

To the N. of the bay of Taliwang follows,—first, the little Labu Bru, and then the larger Labu Sagena or the bay of Setelok, which lies at the distance of 1½ hour from it. Three islets are found at its northern point. Still further to the north we have Telok Allas, which is distant about half an hour from Allas. This bay is not

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large, but deep and secure at all seasons. The row of islets which here stretch along the coast, protect it against the force of the sea from the N. in the season of the N. W. winds, and it is sheltered from the S. E. winds by the mountains. At the western point lies a very small island, on which is the village Bungen, inhabited by Orang Bajo.

The strait from this widens, and the coast runs N. Eastwards. The many Labus, which are found here, are not properly bays, but only safe anchorages, sheltered by the range of islands above mentioned, such as Labu Boëer, Panyorong, Labu Paddi, Lebbo, Labu Bua, &c. The narrowness of the Strait of Allas may be judged from the fact that prahus can pull from Allas to the opposite Coast of Lombok in three hours. We can sail with a good wind from the bays of Taliwang and Chereweh to Piju on the opposite side in an hour, and from the capes on this side in clear weather we can distinguish single objects on the opposite coast, such as men and buffaloes. The narrowest part of the strait is but 9 nautical miles broad. If we now proceed along the north coast to the eastward, we have the small bays of Manini, Bremang, Logg, Karang Match, Padas, Labu Tuntie and the larger bay of Sumbawa. The last only is of importance to shipping. Prahus lie in the western end, that is, in the bay of Labu Tuntie. Both are pretty deep, but are too much exposed to the N. and W. winds.

Of all the Sunda islands Sumbawa has the most bays in comparison to its size, and is divided into some large peninsulas, of which we shall afterwards speak. Some of the bays are so large and at the same time so closed in, that they might almost be described as inland seas. If the island were better peopled, this circumstance,—that is, this peculiar geographical constitution, ought and would exert the most favorable influence on the development and civilization and on the material interests of the population. As it is, however, at present, the greatest advantages of the geographical position are useless. The extent of the coasts stands to the size of the surface on Sumbawa as 140: 222 and on Lombok as 53: 104, thus on the first almost as 1: 1½, and on the last as 1: 2. For these observations I have chiefly found occasion in the largest bay (Telok) of the country, namely, that of Sumbawa, which is not to be confounded with the an-

chorage (Labu Sumbawa) already mentioned. If we take into consideration the relation which exists between the size of the bay and its narrow entrance, then it with justice merits the name of inland sea.

Its greatest length (from the deepest inlying part of the bay of Kowanko to Tanjong Menangis) is 49 minutes or  $12\frac{1}{2}$  geographical miles. Its greatest breadth (from Ampang to the mountain Tambora lying opposite,—from the S. W. to the N. E.) is 18 minutes or  $4\frac{1}{2}$  geographical miles. It thus possesses a surface of about  $38\frac{1}{2}$  square geographical miles, that is, almost equal to the residency of Batavia. Pulo Moyo blocks up the entrance and only leaves a small strait for passage on both sides. The western of these two Straits is called Salee, the northern, between Pulo Moyo and the mountain Tambora, Batahay. Both are very deep. I have only passed through the first, and found no ground in the middle at 100 fathoms. Close under Pulo Moyo we had 20 fathoms. The strait is sufficiently broad to allow a ship to beat up. In its length the bay of Sumbawa runs from the S. E. to the N. W. The prevailing winds blow in the same direction, that is, from the S.E. and, in the rainy season, from the N.W. They are so heavy sometimes, that they are dangerous to prahus, as I myself have experienced. In the upper part of the bay we have sometimes flaws of wind, as they are called, which proceed from the small valleys between the mountains in the East. There is a strong stream in the strait by which we enter the bay, setting into the bay with the flood and running out with the ebb. In the east monsoon the strength of the ebb is greater than the flood; in the west monsoon the opposite is the case. When the moon passes the meridian the flood comes in so much more rapidly, that there is ebb and flood two times a day. The two shores of the bay are very dissimilar. The southern is very flat and indented with small bays, covered with islets which have fresh water. The northern shore, on the other hand, consists of high mountains without water, and exhibits almost a straight line, without any bays or inlets. Here the water is very deep close in shore, and we have frequently no anchorage; in the south, on the contrary, it is mostly shallow. In the western part of the bay, most of the small bays run from the south to the north; in the middle from the south east to the north

west, and in the upper part of the bay wholly from the east to the west.

The smaller bays in the large bay of Sumbawa, from the West to the East, along the South coast, are the following:— On the right hand side of the Strait of Salée the bay of Pan-  
yorong. On the other side of the entrance, Labu Banga, two hours long, very small and deep. It runs from the S. to the N. There are reefs on both sides of the entrance. The long, small and deep bays formed by the mainland and the islands next follow each other, viz—Labu Kuris, Labu Tarata and Labu Tieris. Prahus can here pass between the mainland and the islands; but ships cannot. From here the bays change in form and direction. Labu Kollong is large, broad and shallow. It receives several streams. The neighbouring country, like that at Kuris, is flat and alluvial.

In this bay especially, the South East wind, which is also called *Anjin Kollong*, blows very strong. The land in the S. E. is very much lower than anywhere else on the island (Kollong means also *low land*); the S. E. wind therefore reaches this, and it blows with redoubled strength through the bay and out of it. The ground of the bay is a mixture of sand and mud. Ships cannot approach close to the land. Next follows the smaller Labu Santong, with two arms, and two islets in the western arm. Labu Ampang, which is precisely similar to Labu Kollong. Both lie in the direction of South East to North West. A considerable number of prahus resort here, by means of which the neighbouring village of Ampang carries on some trade.

To the right of the last, lies a smaller bay called Labu Haji. Labu Kowanko, of which the back ground is called Labu Krebé. It receives the rivulet Kowanko, and on the East is inclosed by the islet Kowanko.

The following places, all in the upper part, come next:—Labu Chuni with a rivulet, Labu Lara, with a rivulet and islets, Labu Sonapa with a river and Labu Gembo which lies from the N. E. to the S. W. with a rivulet. It is not very large but tolerably deep. At the entrance we have 13 fathoms of water. Near to the shore there are some large rocks in the bottom, which would

be dangerous for vessels, but they lie in sight and can be avoided.

On the other side of the mountain Ruhu there lies another small creek, the only one on the north side of the bay. Pulo Moyo has no anchoring ground on its east side, but on the west side there is one called Labu Haji, which may at least serve as a refuge in easterly winds. Small rivulets here afford water.

To the east of the mountain Tambora follows the bay of Sangar, of which we find the following subdivisions, going from east to west :—

*a.* The bay of Biu, into which a small river falls. The entrance is narrow and rocky on both sides, while in the middle it is deep and approachable. Pirates sometimes take shelter in this small bay.

*b.* The bay of Belambu, or Sangar in a more limited sense. Open and without dangers. The Company's ships sometimes came here in former times, to load sandalwood.

*c.* That of Kambu, in the kingdom of Dampo, where sapanwood is shipped.

*d.* The bay of Kilo, more open than the above and lying further to the eastward. The road must be very good in the east monsoon.

The bay of Bima, at least as regards the entrance and the northern part, is better known than all the previous ones, because it is most frequented by ships. The remarks concerning the flood, ebb and current in the bay of Sumbawa, are equally applicable here. The current inwards in the west monsoon is stronger than that outwards, and in the east monsoon the reverse.

In the outer bay there are some good anchoring places, as well to the south of and near Batu Puti as near Batu Pah or the so called Portuguese cavern. We find here a small, narrow and deep bay, where there is a beautiful spring of clear water in abundance, which can also be used as a bathing place. The mouth of the inner bay is so small, that ships have scarcely room to enter. It is fortunately very deep close to the shore, else it would be impracticable for the entrance of vessels. Near the point of the so called Southern Fort, the breadth is only about  $\frac{1}{2}$  of a German mile or 800 paces.

The so called Northern Fort lies on an islet close to the shore,

and neither ships nor prahus can pass it on the west side, as at ebb there is almost no water there. The mountains on either side of the entrance prevent any but the winds from N. and S. from prevailing. Whenever the last are strong, vessels cannot enter and must anchor in the outer bay. In the same manner in a strong N. wind no ships can leave the bay, in which otherwise they can lie as secure as in any other bay of the Indian Archipelago. The landing place near Bima is bad, because the water to a considerable distance has become shallow from the alluvium washed down. Directly opposite lies Pulo Kambing, the passage by the west side of which is impracticable for ships on account of reefs and shallows. To the south of Bima the bay is broader, but on the other hand decreases gradually and regularly in depth towards the upper part. Ships do not go further southwards than to Bima. Further inward there exists, however, a very brisk trade for native vessels, and even with very large prahus.

The length of the bay from Tanjong Batu to the southern point of Pulo Kambing is about  $1\frac{1}{2}$  German miles; the length of the southern part from the last place to the upper part, is probably more. Some hours to the S. of Bima lies the bay of Belo with a river of that name. Still further on, the bay at length divides into two shallow arms, into which several rivulets discharge themselves. A small tongue of land, at whose extremity the islet (Nissa) Sedu lies, divides the two arms. From Belo to the hills of Silah, an alluvial flat stretches round the bay, on part of which no trees grow, and which, covered with a thick bed of ashes and sand, is partly covered at high water, while the water deposits much salt on the ground at ebb.

From the bay of Bima to Pulo Naru, opposite Pulo Gunung Api, there are different small bays, which are inclosed by the mountains. I do not know them by name, however, and they are not particularly large or of importance.

Here we find the much frequented Strait of Sapi, which is separated from the Strait of Mangareij by the island Komodo, and with these divides the islands of Bima and Flores from each other. The current in this Strait is very strong, stronger than in that of Allas. The direction, however, is the same. The numerous islands in the Strait of Sapi, and some imperfectly known

reefs lying to the South of it, make it more prudent to proceed through the Strait of Allas. On the West side of the Strait, along Bima, the following bays lie from the N. to the S. :—

Labu Kandang (also Labu Wiera) with a broad opening to the N. E. To the North the long Tanjong Naru.

Labu Tengeh, with a small river. To the N. a tongue of land, Tanjong Tengeh, stretches out into the sea.

Labu Loka, very small. In the neighbouring valley there is a small spring.

Labu Kallo, narrow and deep. On the North side of the entrance is a rock, which bears a perfect resemblance to a coffin. This bay is probably the bay which is marked in the charts under the name of Britannia Bay.

Labu Chiri, very narrow and deep. It receives two rivers of this name. This bay is probably the same as that known on the charts as Rees Bay.

Labu Kowo. It is deep with a sandy ground, and has two broad but short arms, into which two rivulets discharge themselves.

Now follows the large and much frequented bay of Sapi. It affords at all seasons of the year a good anchorage, and is inclosed by hillocks in the N. and S. It is divided in the middle by a group of islands. It has in consequence two entrances, one on the north and the other on the south. Ships must always chuse the last. The first is only practicable for prahus.

On the south coast of the country there are doubtless many more bays, but they have not yet been properly explored. The high sea makes the approach difficult. Near Prado for instance, there must be an inlet behind the islet lying there.

The bay of Chempi to the S. of Dampo, which is even more like an inland sea than the bay of Bima, is very well known to me. It is  $2\frac{1}{2}$  German miles long and at the broadest place a mile wide. The entrance, on the other hand, is so narrow, that large ships, even if there was sufficient water, could not enter. The bay is but two fathoms deep at the entrance, in the middle four, and on the north side only three,—at flood one fathom more. Formerly there were pearl banks here. Pirates have sometimes visited this bay.

## 2. Capes and Islands.

The south western promontory of Sumbawa is marked upon the charts Table-point. I do not know the native name. It lies in  $116^{\circ} 47'$  East Longitude (Greenwich) and  $8^{\circ} 58'$  South Latitude. Horsburgh gives it  $116^{\circ} 42'$  E. Long. and  $9^{\circ} 2'$  S. Lat. The north western point is Tanjong Labu Bua, which however has another name. It lies in  $117^{\circ} 11'$  E. Long. and  $8^{\circ} 23'$  S. Lat.

Between these two points the following islands are found in the Strait of Allas, from the S. to the N.

In the bay of Chereweh two small islands, named on the charts Green and Button Islands.

Near the northern point of the bay of Sagen a three islands, called by the natives Gili Satu, Burung and Lawang.

Further to the north there is a range of islands, extending parallel with the mainland to Labu Bua, and which gives the character of a bay to the sea lying behind it. The islands of this range, are, in their order from the S. to the N., Belang, Tatagen, Passeunet, Pakuku, Genang, (also called Pulo Rangel) Busser (also Pulo Kalong), Gili Belo (also Pulo Panjang, that is, the long island) Segattel, Ai-Tawar and lastly Kamudung. These numerous islets differ very much from each other. Some are long, originating from coral reefs, having more length than breadth and are covered with jungle. The first and the four last above named belong to this class. They prolong themselves on both sides in coral reefs, but leave sufficient room between to allow ships to pass through.

All the others are high islets, consisting of volcanic formation, and mostly cone-shaped in appearance, covered with grass and without cliffs around them.

The sea decreases in depth behind these islands from the S. to the N. In the S. it has above 30, in the N. near Panyorong, &c, only 4 or 5 fathoms depth, as the natives informed me. From whence the name Timor Iyung or Yang for this row of islands is derived, I know not. I never heard it used by the natives. Near the western point of the entrance of the bay of Allas there is an islet called Bungen, having a campong on it inhabited by *orang baje*. All the other islets are uninhabited. Those which



lie in the W. part of the Strait are considered as belonging to Lombok. In front of and in the bay of Sumbawa there are the following islands:—

Pulo Medang, low, covered with jungle and uninhabited. Probably a coral formation, and surrounded by rocks.

Pulo Moyo obstructs the entrance of the bay of Sumbawa. It is 6 square German miles in size, everywhere hilly, and in almost all places very steep. The sea which washes it is very deep and rich in polypi of all kinds. On the west side is the bay Labu Haji, to which the pirates very eagerly resort to waylay the prahus on their way to or from Sumbawa. The S. E. point of the island is called Tanjong Taniwang. The whole island belongs to the latest chalk formation. It is covered with jungle which abounds with game and wild bees. There are rivulets on the west side only. Formerly there were campons and rice-fields here. At present the island is deserted. The former inhabitants all went to Sumbawa, because they were yearly attacked by the pirates.

Opposite the South coast of Pulo Moyo lies, on the West Tanjong Menangis and, in the East, Tanjong Ai Gayong, in front of both of which are reefs. Opposite the east point of the island in the N. is Tanjong Arum, and in the S. Tanjong Basso, both points of the Tambora mountain-chain. Within the bay we have Great and Little Pulo Dangar, opposite Tanjong Ai Raras. Then Pulo Liang and Pulo Ngali, both very long, small and high. The islets of Pulo Tapan, Tenger, Tai Kebo, Dempu with its two horns, and Tepi, are much smaller.

All these islets mostly consist of volcanic remains, and are, like the following, uninhabited and covered with jungle.

Pulo Rakit is the largest island in the bay, long (from S. E. to N. W.) and low.

Nissa Dewa is a naked rock opposite Tanjong Satupu. Pulo Kowanko is also very long (from S. E. to N. W.) and low, but smaller than Pulo Rakit.

The islets in Labu Santong, Labu Lara, as well as the Great and Little Pudu, are naked masses of rock.

Nissa Balerc, near the shore in the bay of Kowanko and Nissa Munte to the N. W. of Pulo Kowanko are not much larger.

Pulo Satanda, to the N. E. of Pulo Moyo, is high and abounds in game. It is easily recognized by the two nipple-shaped hills of which it consists.

In the bay of Bima we have to the E. Tanjong Batu Puti,—further to the S. Tanjong Batu and to the S. of Bima, near Lelo, Cape Lewi Mori.

I have already mentioned the islet on which the Northern Fort stands and Pulo Kambing opposite Bima. The inhabitants assert that Pulo Kambing is a shipwrecked prahu which has been turned into stone. They point out all the different parts, even to the cable of the anchor. It is a steep rocky hill, on which some half withered trees grow. Above, on the hill, is the grave of a saint belonging to the family of the Sultan. The sea round it is very rich in fish.

Nissa Sedu, quite in upper part of the bay, is a small spot of ground, which from a superstitious fear cannot be trodden by women who are enceinte. Wherefore, people would not tell me.

We now come to the capes and islands in the Strait of Sapi, where they are very numerous.

The North Easterly point of the country of Bima forms Tanjong Naru, to the north of Labu Kandang, opposite Pulo Gunong Api. To the south follows T. Tenge with a cliff at the extremity.

T. Dumbia divides the bays of Kowo and Sapi and T. Jati forms the most easterly point of the land to the south.

Of the islands, I will first take those in the bay of Sapi. The largest is Nissa Naé, that is, the great island, the second in size Nissa Entossa, while the many masses of rock which are scattered about are collectively called Passir Bajo.

Nissa Todo (and not Sintodo as on former charts) is larger. In the Bima language Nissa means island and Todo means ground full of holes and pits. To the east lie the three masses of rock and the three islets Burussu, Keppa and Mata Setan. More to the south lies the larger Komoro, with some rocks in the vicinity.

Pulo Gunong Api follows next. The mountain rises immediately out of the sea and forms two peaks, a northern and southern. The last is very steep, with deep chasms and covered with wood so that it would appear not to have been in a state of crup-

tion for a long time past. The southern summit, with a crater on the top, still retains its globular shape and is covered from the top to the shore with sand and black stones. It is, according to Melvill van Carnbee, 7123 Rhineland feet high. The crater was not in operation at the time I saw it. From time to time, however, the mountain is heard thundering and whenever earthquakes are felt on Bima it is believed that they proceed from Gunong Api. This island was formerly inhabited, although in the dry season neither rivulets nor wells yielded any water and in the rainy season only after heavy showers. Notwithstanding this, however, water is to be had in abundance all the year round. Wherever holes are dug on the shore they are immediately filled with the purest water for drinking. Some villages were to be found here formerly. When however the villagers were every year attacked by pirates and murdered or carried away, they at last forsook it and went to Bima, where part of them settled and part in the vicinity of Wiera which is exactly opposite to Gunong Api. The fruit trees still flourish which once overshadowed the campong and bear the finest fruit, especially pumplemoses (*citrus decumand*). Some people still go every year to the island and remain some time, hunting, fishing, gathering the fruit and burning the grass and lalang fields.

Gili Banta is much larger than the islands already mentioned and has a high peaked hill in the south. Komodo is still larger, having a surface of about 10 square German miles which is intersected from the S. to the N. by a high ridge of hills.

All these islands are under the government of Bima, and are all at present uninhabited. Some persons formerly lived in Komodo, but the attacks of pirates forced them to abandon it and go to Bima. To the South of Bima and Sumbawa there are also some islets, of which very little is known. Two of these and not one, as on all charts,—lie to the South of Bima, close to Prado. The easternmost is called Tengani, the westernmost Sido. Norrie and others also place Pulo Rakit here, but it lies in the bay of Sumbawa.

### 3. *Size of the Islands,—Natural and Political Divisions.*

Now that I have described the boundaries of the country, its coasts and the islands surrounding it, I will return to the country

itself. The mainland of Sumbawa and Bima has, according to my calculations, a surface of 222 square miles. Mr Melvill van Carnbee estimates it 278 square miles, which is certainly too much, even if we include the surface of all the neighbouring islands, which is reckoned at 24 square miles.

The island is divided into four parts by its natural conformation.

The first is the Peninsula of Sumbawa, the westernmost and largest division of the country, bounded on the south by the South sea, on the west by the Strait of Allas and on the north by the Celebes sea and the great bay of Sumbawa. It is joined to the eastern part by the isthmus of Kowanko and Mata and is 90 square miles in size.

The second division is the peninsula of the Tambora mountain, bounded on the south by the bay of Sumbawa, on the west by the Strait Batahay and on the north by the Celebes sea and the bay of Sangar. It is connected with the rest of the country by the isthmus of Sangar and possesses a superficies of 25 square miles.

The third division consists of the middle of the country, and is bounded on the South by the South sea and on the north by the Celebes sea, while it is connected on the west with Sumbawa and Tambora, and extends to the bay of Sumbawa. It is bounded on the east by the bay of Bima and the easternmost part is bordered by considerable mountains. It has a surface of 44 square miles.

The fourth division is the eastern peninsula of Bima. It is bounded on the north by the sea of Celebes, on the east by Sapi Strait and on the south by the South sea. On the west side it is shut in by the bay of Bima. The mountains between this bay and that of Chempi connect the eastern peninsula with the middle of the country. This division contains about 38 square miles.

The political division of the country is not the same as its natural division.

The first part, only, consists of an entire state, that of Sumbawa, with the almost independent sub-divisions of Chereweh, Taliwang, Setelok (and formerly Serang) and Allas, all lying on Allas strait. The isthmus of Mata forms the eastern boundary of the kingdom of Sumbawa.

The second division of the country formed at one time the

Kingdom of Tambora, and in the South West point of it the state of Papekat.

The kingdom of Tambora extended to Sangar and Dampo along the isthmus of Sangar.

The third part consists of the kingdom Dampo and the kingdom of Sangar, inclosed by it and lying to the north.

At present Dampo also claims the former kingdoms of Tambora and Papekat which cannot any longer be considered as independent states.

The eastern half of the third division and the whole of the fourth division constitute the kingdom of Bima.

The size of these states, according to the present divisions of the country, is as follows:—

Sumbawa, mainland and islands . . .	93	sq. miles.
Dampo,           "           " . . . .	70	"
Sangar,           "           " . . . .	6.5	"
Bima,            "           " . . . .	71.5	"

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246

Sumbawa lies between the  $116^{\circ} 47'$  and  $119^{\circ} 12'$  East Lat. (Greenwich) and has thus a length of  $2^{\circ} 25'$ . The western point of the land is the Table-point on the Strait of Allas, the eastern Tanjong Jati on  $119^{\circ} 12'$  E. Lat. and  $8^{\circ} 33'$  S. Long. The distance between these two places is  $35\frac{1}{2}$  geographical miles. Its greatest breadth, from the northern foot of Tambora in  $8^{\circ} 6'$  and the last point somewhat to the east of Table-point in  $9^{\circ} 3'$  S. Long., is  $14\frac{1}{2}$  geographical miles.

## 2. *Geological constitution of the island. Mineral productions.*

Sumbawa is such a mountainous country that there are almost no plains to be found in it,—that is, plains of any size. Those which we find there are small strips along the coasts and alluvial land. They scarcely rise above the level of the sea, from which, as well as their small breadth, it is to be presumed that they are of recent formation, and that not long ago the sea washed the foot of the mountains. It is certain that the ashes, during the eruption of Tambora, added much to their extent. The geognostic structure of the mountains of Sumbawa is very simple. I have

only noticed *four* principal formations, viz., the alluvial ground, already mentioned, new coral formations, recent coarse chalk (grofkalk) and volcanic remains.

The coarse chalk forms no very large masses, is nowhere driven high up (scarcely to 500 feet) and bears very evident traces of having once been washed by the sea. I have not found a single petrification.

At one place it appeared as if the coarse chalk had been driven up through the volcanic mountain chain, at another that it had been burst through by it and lastly that it was covered by it.

I have met with it on the following places viz; on the ridge of the Woo Saheh, which divides Bima from Dampo and forms the connecting link between the northern and southern mountain-chains of these countries; on Pulo Moyo: on the hill ranges between Sumbawa and Rè, but only appearing in detached places, and at the same time in other hills which consist of volcanic masses of stone; on the bank of the river Tampok Benok, mingled in unequal combination with volcanic remains.

The coral formation is confined to the low islands in the west. The volcanic elements are, besides sand, ashes, lapillis, pumice stone and volcanic tuffstone, principally trachite and lava. I never found either basalt or obsidian.

The topography of the mountains seems to be much more intricate, and I shall here shortly sketch it.

In general the country consists purely of volcanic remains, or of fragments, which have been strewed and flung to a distance when the volcanoes formed themselves, or have been scattered and destroyed by subterranean forces. Such a systematic combination of raised and upheaved places as in the east of Java, Bali and Lombok, we never find here. Certainly no island in the Archipelago has suffered so much from violent changes and shocks in its geological condition as Sumbawa. Except the southern peak of Gunong Api, no mountain has retained its original shape, and in most of them it is scarcely to be recognized.

We can distinguish four mountain chains on Sumbawa which all run from the east to the west. The Northern consists of the remains of some volcanoes, which have partly retained their circular and coneshaped appearance.

The Western consists of the beautiful mountain Ngenges, which forms the north western point of the country. The whole mountain forms a huge crater with a steep descent on the inside, while the outer sides consist of numerous sharp ridges which radiate in all directions. Numerous rivulets and rivers flow down the intervening hollows. The wall of the crater is broken through on the N. W. so that the largest chasm is here, in which the village Buèr is situated. The highest peak to the S. is called Satupu and that to the S. W. Sabra (which is seen from Allas). The highest and lowest mountain ridges stretch to the Southward. First the Gunong Bedokh along the coast of Allas strait; more inland the Tamper-Bayem which terminates near the village Reba and the very high ridge lying next it called Gunong Sonkhar. All three run from the N. to the S.

I hold the mountain Ngenges to be the highest in Sumbawa, although the natives assert that Gunong Batu Lanteh is higher. I place the height at 5,400 Rhineland feet. My calculation cannot be more than 200 feet from the truth.

The mountain is more thickly covered with trees, than any of the others which lie in the vicinity of Tambora. It is also well supplied with water. To the east of Ngenges and somewhat more to the N. lie the Sesset mountains, of which the uppermost part is serrated like a comb and runs from the S. W. to the N. E. The detached peaks which belong to it, are the steep Skedet to the S. and the Pussu to the N. The highest point of this mountain is probably not more than 2,400 feet above the surface of the sea.

On the N. N. W. side of it rises the isolated, steep and cone-shaped Gunong Rê, also of volcanic origin.

The third mountain of this series is the Batu Lanteh in the S. W. of Sumbawa. The natives consider it the highest mountain of the country, in which I do not agree with them. It is particularly rich in water, on account of which the natives facetiously call it Gunong Perampuan. Its slopes are not very steep, so that its form has the appearance of a flat pressed cone. The ridges also which run down from it are not so sharp as those of Gunong Ngenges.

The higher part of the mountain and the S. W. slope are

covered with fine trees. I visited this mountain on the 10th and 12th September, 1848. I followed the river from Sumbawa upwards to the village Pelat through a well cultivated valley. From thence I ascended a mountain ridge which I followed upwards to Summung, where a spring of water takes its rise. There was formerly a small mountain village here but it is now abandoned. We now only find a few huts here and there on the mountain ridge and the slopes. They are only inhabited during the season when the cultivation of hill paddy draws the people there. From hence a footpath leads to the villages Ngentong and Ampang in the N. E. lying on one side of the ravine, while another runs to Mugen and the neighbouring mountain villages Tepo, Batu Rotokh, Mussukh, Tankan Pulit, &c, in the S. W. Opposite to Summung we find ourselves amongst very old trees. The mountain has two peaks, of which the S. E. appeared to me the highest. I ascended the N. Western, which has an unusually sharp ridge at last. Above lie two masses of rock, which run into a blunt point and turn the flat side to each other, forming a cleft about a foot wide from which water wells out. This split rock or stone is the cause of the name of the mountain. The natives say that these two rocks on the top (for there are two others besides these) belonged to a fortified village, which was surrounded by walls and fortifications. With considerable difficulty I climbed to the top of the highest of the trachite rocks, which commands a most enchanting view. From Gunong Rinjani on Lombok I perceived a vast column of smoke ascending. The Tambora, on the other hand, was scarcely discernible in the flood of light diffused by the morning rays. At its foot the great bay of Sumbawa was visible, its smallest and most hidden nooks and all its numerous islets standing distinctly out. To the south, in the distance, stretches the labyrinth of the mountainous world of Sumbawa, of which none can tell me the secrets, any more than I, with my compass, can measure the principal peaks. The rocks, impregnated with iron, drew the needle entirely out of its proper direction—sometimes as much as  $9^{\circ}$ . By means of the temperature of boiling water I estimated the height of the peak on which I was standing at 5090 Rhineland feet. The second range of the mountains of Sumbawa shows itself much less



distinctly, it does not form a separate system, but consists of side branches or pieces of the contiguous ranges to the N. and to the S.; and partly also of isolated mountains or such as have been thrown up between by simultaneous volcanic action in the N. and in the S. We can recognize in this range only one common volcanic origin, but there is no agreement in form—no fixed direction and no central point conspicuous from height or extent.

To this range, to the west, belong Gunong Mantar near Setelok in the Strait of Allas, Gunong Bedokh (i. e. the long mountain), —Tamper Bayem and Gunong Sonkhar.

To the south this mountain range is divided by the Taliwang river and the rivulets falling into it. To these succeed the Udan river in the valley of Mugen and Kalais. On the right bank (i. e. to the S.) the mountain called Batu Besanak rises out of a high steep ridge with seven rugged points, from whence the mountain derives its name, which means "the mountain with its children."

On the left (i. e. to the N. E.) lies the rounded and less lofty Atas Kalais, i. e. "the head of Kalais." It is entirely covered with alang-alang while the sides of Batu Besanak are bare in many places. Further to the E. we have the Setemper which is completely overgrown with alang-alang and abounds in deer. It is a species of high country, consisting of hundreds of rounded hills. There is very little water in the intervening hollows, where, however, rice was formerly cultivated. Two steep precipitous pyramidal rocks called Gunong Tutuk are conspicuous amongst these hills. To the N. and N. E. of the Setemper mountain, lie the high mountain ridges, known under the names of G. Seli, G. Lammer and G. Patonang, about south from Sumbawa. They are covered with jungle, but none of them are probably above 2,000 feet high. In the same direction, but further to the east, follows the labyrinth of hills between Plampang and Sumbawa, which stretch in a long longitudinal direction from the S. S. E. to the N. N. W. from Jaran Pussang to Tanjong Menangis. This collection of volcanic debris has no general name with the population. Each high hill has its own particular appellation. Most of these hills on the N. N. W. side are very steep and destitute of vegetation, while those in the S. S. E., are gently swelling and covered with alang-alang. They mostly consist of lava and some-

times of volcanic tuff-stone. I have nowhere observed a continuous regular formation. The islands of Pulo Dangar to, and inclusive of, N. Liang also belong to this collection of hills, which, for the rest, must be considered as belonging not only to the second but also to the first range of mountains.

The third range of the mountains of Sumbawa was not visited by me, although I was at its base. It stretches in an almost unbroken line from East to West, and it will be better, instead of describing it from West to East, like those above, to reverse the order. It commences abruptly in the East with a steep mountain, the Jaran Pussang, which appears to me to be a burst volcano. It is naturally a wedge shaped hill, forming the  $\frac{1}{3}$  or  $\frac{1}{2}$  part of a cone-shaped mountain, which it has been originally. The eastern and northern sides are precipitous, perpendicular walls, more than 1,500 feet high, while the southern and western sides, as is usual in Indian volcanoes, slope gently down and lose themselves in the low ground. I estimate the height of the top at more than 3,000 feet. Jaran Pussang means "a steep horse" and in reality the contour of the crest from many sides has much resemblance to the back of a horse. Other parts of the mountain have different names. The natives assert that the mountain cannot be ascended without danger of life. As soon as the top is reached, the rash explorer is assailed by tempests, rain, &c, which deprive him of life. It is a legend which is related of other high mountains, and generally where the inhabitants are too lazy to undertake the ascent.

Further to the West we find another high point in the chain, Gunong Ropang. It has much resemblance to Batu Lanteh, and is rather higher than the Jaran Pussang. It is very jungly and abounds in water. The ground must be very fertile. Most of the coffee consumed in the kingdom of Sumbawa comes from the plantations on Gunong Ropang, on which some villages are found at a considerable height. The chain extends further to Allas Strait, between Taliwang and Chereweh, without showing a high point of any importance. The whole extent of the range appears to be of volcanic origin. To the west of Gunong Ropang the range appears to be completely intersected by two valleys which afford passages to the Punik and Udan streams.

The fourth mountain-range runs along the south coast to the Strait of Allas. It commences with Gunong Dodo, a mountain on the South coast having much similarity to the Ropang, and about 3,600 feet high. This chain is also cut through in many places. The eastern part is decidedly volcanic, while, on the other hand, it is probable that the chalk formation commences at the so called Tafelkoek (Table point),—as the name appears to indicate, and which is also confirmed by the analogous geological relations on Lambok, Bali and Java.

The third and fourth mountain chains, are those, probably, which are marked on charts of Sumbawa in the south, "high elevated land in a double chain of mountains" (see Norrie, Berghaus and others).

From Jaran Pussang in the direction of the East the nature of the country and the mountains begin to alter. At the eastern foot of this mountain there runs through the country or through the isthmus, a strip of low land from the S. E. to the N. W. which constitutes the lowest portion of the country, and from that circumstance is called "Kollong". The conjunction of the South sea with the bay of Sumbawa is however not a valley properly so called, for it consists in all parts of hilly country at least 300 feet above the level of the sea, and can only be denominated low land in comparison to the much higher mountain country lying to the east and west. To the N. W. this level plain terminates in the valley of L. Kollong, while in the south east, probably on the south side, it ends in an alluvial coast plain at the place marked on the charts "long island". If we now proceed further towards the E. we find a similarly formed mountainous or rather high hilly country, which extends from Jaran Pussang to the bay of Jempi. It consists of numerous hill ranges, which run in a direction from the S. E. to the S. W. with more or less noticeable variations to the S. and N. W. and E. The slopes are generally steep, the ridges broad and flat,—and the valleys lying between them so narrow that they may be called clefts. Cone-shaped mountain tops, circular mountains, traces of craters and so forth are not to be met with here, although they have clearly been elevated by volcanic agency. They all rise precipitously from the South sea and extend to the bay of Sumbawa.

From the West to the East we have the following points, which are at all distinguished by height.

Gunong Lompak, W. S. W. and Gunong Sudi to the W. S. of Ampang. Gunong Baja is an isolated peak to the N. between L. Kollong and L. Santong.

From Ampang going towards the east, we have the following hill ranges :

First, rising over the barren plateau or table land called Latèr, which forms the foreground, we have Gunong Pedu Mangi, (tolerably high), Mangitoi (much lower), Danan Dereh (west), Danan Dereh (east), Wonto (west), Wonto (east), Latta, Wela and Risso.

The mountain Mangi is on the west side covered with bambu, while on the east side side it is thickly covered with jungle. The last of this hill range, forms the highest mountain among them, the Mata do Jawa (the eye of Javanese). At its eastern base lie the villages Mata to the S. E. and Kowanko to the N. Behind this mountain, a little more to the W., rises the still higher top of the mountain Gunong Troa (the clear mountain).

I have thus gone through the whole structure of the mountains on Sumbawa, and I shall now go over the other parts of the country. I need only further mention, that in the language of Sumbawa a mountain is called Olat, while in the Bima language a mountain is called Doro and a chain of mountains or mountainous country is called Dongo.

The same hilly formation prevails, direct to the bay of Chempi.

From the valley of Kowanko to the east, follow the hill range of O-on-Janga, which consists of volcanic tuff-stone of which the layers are so singularly placed that they have a close resemblance to a wall which has fallen down, and Panto-bungi, Melajang and Lemba, all three low, sterile and covered with thorny-bambus. The Luru Bango is much higher and longer. It encloses the bay of Sumbawa on the east. On its west side it is very steep. In the south there is a high peak, one of the highest of this hill country, called Salapi, certainly over 1,000 feet high. Beyond the Luru Bango in the east there stretches the valley of Bango. Then follows a ridge which runs from the S. to the N., connecting the mountain chains to the N. and the S. by a cross-range, at the point over which the road passes, called Doro Siri,—more norther-

ly Doro Kairo, and more to the South called Doro Depa. Close on the bay of Chempi in the west lies the Doro Lara. This bay taken in connection with the broad plain of Dompō, marks distinctly the termination of the southern hill country. Further to the east this hill country undergoes a change in its character. It still consists of parallel ridges, which run from the south-east to the north-west, but these ridges are higher. They are no longer hills but mountains. Some points are distinguishable from their height, form and steepness. Others still show remains of old craters or solfataras. Between them are deep vallies, through which flow streams and rivers which present ample space for cultivation and occupation.

In the first of these ranges the pyramidal mountain Rango raises itself in the S. E. of Dompō. The second range has the two high peaks of the Jara Dundu in the south. This name signifies "a mountain so steep that horses on its sides slip down below". To the northward this ridge expands into the broad plateau of Woo-Sahēh (buffalo neck) consisting of chalk,—which bounds the plain of Dompō to the east, and forms a connecting link between the north and south hill country. On the south side and at the extremity of one of the ranges lies the Gunong Jollo or Sulphur mountain, south-west of the village Prado and south-east of Dompō, within which last district it is situated. The following are some particulars regarding this mountain. It lies at the distance of a day's journey from Prado, two day's journey from Bima, and two from Dompō. It is ascended on the north side. The South-sea is visible from the summit. In order to reach the solfatara (from which the sulphur is obtained) it is necessary to descend the southern side a little way, and a hollow is reached, which forms the half or  $\frac{2}{3}$  part of a basin, which is open on the south side. Through this opening flows a stream of cold and clear water to the South sea. The sulphur is dug from three places, in the east, the south and the west. Each place is from 100 to 120 roods long and 50 to 60 roods broad. The sulphur collects between masses of white stone (probably dissolved trachite) and sometimes covers a space of 1 to 3 roods square. On the liquid and warm sulphur there is a hard crust of two inches thick. It is only dug in the morning and evening, it being too hot to work it

in the middle of the day. Round holes are made, at a distance from each other of 8 or 9 feet, which are two feet deep and have an outlet from above of one, and from below of from three to four feet. A koyan of sulphur was formerly dug yearly at this place, but more than twenty could be procured. At present the working is abandoned. Since the Sultan of Dampo has quarrelled with the Sultan of Bima he has prevented the Bimanese from resorting to it. The people of Dampo do not go there as it is too far from them.

Gunong Prewa is the north western termination of another range, which rises to the east of the two Jara Dundus. That it is an existing volcano, appears from the solfatra on its south-western slope. Formerly reports were heard from the interior of the mountain like claps of thunder, and when thunder is heard at Bima from the south, it is said to come from Gunong Prewa. The Woo-Saheh, Jara Dundu and the Prewa enclose the fertile plains of Silah and Dena and the sterile plains of Dongo-bolo and Belo, which extend round the bases of these mountains and the back ground of the bay.

I am less acquainted with the mountainous country towards the south-east and must therefore leave some ranges undescribed. On the east side of the bay of Bima and to the south of the chief place, the mountain Londa stretches from the north to the south. The advanced hill Lewi Mori, which is an outshoot from it, is a lava stream, of which it is not easy to determine the origin. In the south, the D. Londa terminates at the Belo river. To the S. E. of the village of Belo is a hill, which, according to the natives, is so steep that no European can ascend it. At the foot of this hill, it is related, is a spring and near it a bench and a chair which have been turned into stone. Above on the hill, stands a horse with saddle and bridle and a cat, which have also been converted into stone. The horse is named, after its owner, Ompu Reba. Once upon a time the ground in this quarter began to shake and everything to turn into stone. Ompu Reba then fled to horse, while his cat ran after him. But when he saw that his horse could not go further and was also changing into stone, he leapt off and fled alone.

The whole legend undoubtedly refers to a volcanic working or

earthquake or an eruption of volcanic matter, and may certainly be held to be connected with the lava stream of Lewi Mori.

In the eastern part of the country another high mountain ridge shows itself, which runs in a double bend from the N. W. to the S. E. The highest northern point is Doro Tongo, from which the whole mountain chain is sometimes called Dongo or the mountain country of Tongo. The central and highest peak is called D. Sambori. The eastern on Sapi strait is called D. Massa. To the east of this mountain extends a broad mountain ridge, which consists of a great many low, rounded and sterile hills, running from the mountains in the north to the bay of Sapi and parallel with the similarly described hill chain of Tongo. This country on the west side is called G. Wabo.

The eastern part of the island, lastly, includes the mountain-ridge Lambu, which runs from the W. to the East to Tanjong Jati. G. Lambu is a truncated, cone-shaped hill, with not very steep slopes, against which lean some isolated, steep and cone-shaped hills. I estimate its height at 4,500 foot. It may have been a burnt out volcano and each hill one of its side openings.

It now remains to go over the northern mountain chains of the eastern part of the island.

The first which we find in the west is the Tambora, in the mountain country of Sangar, but I will postpone its description until further on, when I will collect all that relates to this range and its mountains in one chapter.

Further to the east, in the kingdom of Dampo, come the mountains in the district Sneho, with the highest peak D. Snahi. It is unoccupied by the population, notwithstanding it appears fertile and fitted for cultivation to the highest point (3,000 feet). It is connected with the mountains in the S. by the Doro Sirih.

Further east follow the mountains of the district Kilo, with the highest point D. Dende. It has much resemblance to the preceding mountains, but is higher (perhaps 4,000 feet). Lastly, we find in the west of the bay of Bima the mountains of Dongo Pajo, called in Bima simply Dongo (the mountain country). It is like the two preceding of volcanic character. The western and highest part forms the proper mountain of Pajo. It is a mountain of cone-shaped appearance, with two peaks, between which is a

saddle-ridge, from which it is called by seamen Saddle-mountain. The north-western peak is called D. Dendi,—the south eastern Aru Hassa. I ascended the last from the village of Pajo on the 8th and 9th September. It had never been ascended previously, not even by the natives. The highest point is thickly covered with jungle, principally Freycinetias and Gleichenias. All the way up the mountain forms a ridge, very like a roof, of which the east side runs nearly 2,000 feet straight to the bottom. I tried the height with boiling water and estimated it at 5,340 feet. D. Dini is somewhat lower. The Woo Saheh leans against D. Pajo to the south.

The eastern part of this mountain country consists of a high and long mountain-chain, with many steep points and summits. It runs from north to south along the west coast of Bima, and encloses the Aru Hassa in a great bend. On the inner side, the sides are very steep. On the outer, they slope gently down to the bay, intersected by the ravines, between which there are as many exceedingly sharp ridges with almost perpendicular sides.

To the north of this chain rises the isolated Vader Smit or D. Soro Mandi, 4,421 Rhineland feet high, according to Mr Melville van Carnbee. It has never been ascended. The natives state that there is a hollow on the top, containing a lake, which is very probable. There must be still traces remaining of a former crater. From the flat summit bold ribs run down the steep slopes on all sides. When the earthquake occurred in 1836, large pieces fell from these ribs on the south into the ravines. The Bimanese have many legends and superstitions regarding the Soro Mandi. In its jungle lurk enormously large serpents, millipeds as long as an arm and as broad as the hand, and troops of mountain-demons. In short, death awaits the rash adventurer who should attempt to climb the mountain. Also, spanning the middle of the mountain, there is a *kain* (cloth) woven of gold thread. It is invisible and cannot be steped over. He only, who at this place delivers up two pure virgins, can cross the magic barrier. Unfortunately I had no time to prove to the brave burghers of Bima that it was possible to surmount the barrier without such a fascinating offering.

In the chain which runs along the bay, we can distinguish a number of peaks, of which I shall only notice those most distin-



guished by height viz—to the north D. Sura, D. Lassi and D. Tiro, which are all probably above 4,000 feet high. The Dongo Buha is the steepest of all. It has the appearance of a three sided pyramid and is so steep in the upper part that it is impossible to climb it. It is about 3,000 feet high. The slopes are covered with alang-alang. D. Lari, to the south of this, is still lower, a flat ridge, somewhat resembling a coffin in appearance. The chain is terminated by the isolated cone-shaped hill Dongo or Gunong Iku.

To the east of the bay there are two other steep chains of hills on the north coast. Both are circular mountains, with deep but ruptured cauldrons on the inner side. Both are remains of old volcanoes.

The western mountain is the Mongo Lewi, the different peaks of which have distinctive names, such as that called D. Kray to the N. E. of Bima, at the foot of which the chief place is situated.

The eastern system has several names. It is higher and more extensive than the system of Mongo Lewi. Both are connected by a high mountain ridge of the Doro Lela.

In the west is the mountain chain which forms the north eastern point of the country, called G. Maria—in Sapi simply Ara, namely the mountain, or the great mountain. It is most open to the N. or next the side of the village Wiera, where a valley runs from the sea right into the heart of the mountains. To the west the valley is enclosed by the high and steep ridge of the Gunong Chewu, across which the road to Bima runs. In all directions similar, although less lofty, ridges (such as G. Kanento) extend to the N. E. The highest part of the mountains is covered with beautiful jungle. On the western ridge are very fine teak trees. I make G. Maria 5,000 feet high, and the path across Chewu, according to a barometrical observation, 1,660 Rhineland feet.

I will here add a few particulars regarding the mineral productions and resources of this mountain world.

*Salt.* See the chapter on trade and industry.

*Sulphur.* I have mentioned this in describing Gunong Jollo. Sulphur is also found in the solfatara of the Gunong Prewa, but in trifling quantity. A great deal of sulphur exists on the sides of the Tambora.

*Arsenic*, is probably also found on the Tambora.

*Pumice Stone*, in incredible quantity round the Tambora, but it is of very inferior quality.

*Asphalt* and earth-oil in the interior of Flores near Bari.

*Hones*. They are found high in the hills near Allas and also in the river of that name. The place where they are picked up is difficult of access. The stones are of very good quality and even adapted to set pen-knives. They have given their name to Allas, for that word in the Sumbawa language is the same as in the Malay *alus*, and means *fine*.

*Batu Lebbo*, a hard clay which is found in the interior of Sumbawa and is brought to market in Sumbawa. The stones are heated, then pounded very fine and eaten by themselves or with rice and vegetables; this singular dainty is chiefly used by pregnant women.

*Opal*, is found in detached pieces on the Gunong Prewa.

*Precious Metals*, or metals such as lead, tin, iron &c in large deposits are not met with on Bima and Sumbawa. No coal of any kind has been found.

The Prigi Tambaga, three hours to the south of Sapi is not so named because copper is found there, but on account of the metallic sound which is observed when a stone is dropped into this holy well, which is 60 feet deep.

#### *Rivers and Rivulets.*

It is almost unnecessary to remark that on an island of the extent of Sumbawa, no streams of any size, much less large rivers, can be found. No single river of the country is in the proper sense of the word navigable. At the most they can only be used with small boats, and generally only at the mouths when the tide is full. In the rainy season most of them are swollen, but only for short and uncertain periods. The rapid currents, moreover, then render them all but unnavigable.

Most of the rivers and rivulets dry up in the fair season, while others disappear in the sand and only have water in them amongst the mountains. In the rainy season, on the contrary, they have not only water, but many of them, especially those which rise in the mountains, change into destructive mountain streams and wild

torrents, which overflow their banks and sometimes work much mischief.

(M. Zollinger adds the names of a great number of rivers and rivulets, which are omitted here as not possessing any interest to the reader.)

## Chapter II.

### THE VEGETATION OF THE ISLAND.

#### 1. *External Appearance.*

In regard to the Botany I need only describe it very briefly, because in general the Botanical character of the vegetation on the island of Sumbawa is identical with that of Java.

As on Java, we also find here antitheses in the vegetable kingdom; in the sea and on the land,—on the shore and in the interior,—in the plain and on the mountain—on the cultivated and the uncultivated ground. Bima, however, has no Alpine regions, for there is only one peak which rises above the 8,000 feet, that of the Tambora, whereon no vegetation exists.

The country has been much poorer in plants since the desolation of 1815, for many plants which require a humid jungle and a thick humus layer for their production, have probably died out. Many places which were formerly thickly covered with vegetation are now covered with ashes or with a very thin sprinkling of plants. That the number of individual plants has been diminished is evident, but we can only guess at the kinds.

Although the flora of the country is rich, yet we can readily perceive that there is on a similar extent of ground on Java more species of plants than on Bima and Sumbawa. The greatest difference between the vegetable kingdom on Java and that on Sumbawa is more a physiognomical than a systematic botany, at least during the dry season. Nearly all the trees then lose their leaves, and the trees are as bare as they are during the winter in Europe. An exception to this, however, occurs in the plantations formed by man,—the higher forests on the mountains,—and the vegetation growing close on the shore, which at all times surrounds the coast with a green and fresh girdle. In the forests growing on stony hill slopes and on plains covered with ashes, this periodical shedding of leaves is the most marked. In the dry sea-

son, for example, the hill and mountain slopes which surround the bay of Bima, present a very dismal and withered appearance. At such times the only places where the eye finds a green spot to rest upon, are near campongs or where a river finds its way through a ravine or on the hill tops. Everywhere there prevails a greyish brown mouldiness which speedily wearies the eye. The grass and along-along fields appear to be covered with straw. At a later season those intended for pasture were set on fire and the black, burnt-up hill sides increased the dismal impression which such a waste landscape made on us. The only places on Java which I can in any manner compare with the above, are the slopes of the Arak-arak mountains near Bezukie and those of the Baluran mountains, as well as the eastern plains and hillocks in the division of Panarukan. The tamarind trees which are found growing in great numbers on the driest ground constitute an agreeable exception. New leaves make their appearance as soon as those of the previous year have fallen off, and the young foliage has the same delicate green as beech trees in Europe. How welcome were these trees to me, when they afforded me a thick shady refuge during the burning mid-day heat, while all around was leafless and the eyes were nearly blinded by the intense light of the noon-day sun and the refraction from the bare ash-covered ground.

On the arid plains and low hills we chiefly find thorny shrubs. The most common is the *Acacia-tomentosa* or the Kayu Pilang of Java. The young shoots, of which the thorns are still weak, are eagerly devoured by the buffaloes, which often can find no other food than the shoots of this or other trees. In still greater abundance we find the Bidara tree (*Ziziphus jujuba*) the sour fruit of which, with the tamarind, forms the principal food of a number of monkeys. Thorny climbing plants are also abundant, such as the *Acacia*, *Capparis* and the *Caesalpinia*, amongst which ought to be mentioned the sapan wood (also a *Caesalpinia*.)

I will here shortly enumerate the principal physiognomical plant-forms.

I have already mentioned the shore vegetation. It almost entirely consists of trees with constantly green shining leaves. The *Rhizophora*, *Sonneratia* and *Advicennia* and others grow in

the water, while the Kayu Sawo (*Diospyros kanki*), the gigantic Ketapang (*Terminalia*), and *Barringtonia* and the dark-green Jamplong (*Calophyllum Inophyllum*) grow along the shore in the sand. Sometimes low, grey green *Salicornia*, *Salsolas* and *Trianthemas* with fleshy leaves cover the salt-saturated ground. We most generally met with thickets of *Excoecaria Agallocha*, L. This tree is much larger here than I have any where seen it on Java.

The cultivated plants are much the same on Sumbawa as on Java, such as coco palms, fruit trees and bambus in the campongs, rice fields, sugar canes &c.

In the jungle, the most important of the palms which we find is the lonthar-tree, with its globular, grey-green crown, in the damp hollows near the sea. I have already mentioned the appearance of the leafless forests on the plain and on the mountain sides. After the first falls of rain in September and October the aspect of things undergoes a change. New leaves burst forth and a new green mantle spreads itself over the forests and fields, increasing daily, until the whole country has undergone a complete alteration. The forests and trees then again resemble those of Java, and those in the higher mountain-chains and well watered valleys of Sumbawa.

It is only on the northern and south-western slopes of the Tambera that we find fir-trees, represented by the Chamara-trees (*Casuarina montana*, Jungh.)

The cactus-like, apetalous Euphorbiacea, constitute a completely peculiar form of plants, which are only met with on Java singly or planted in hedges. On Bima they are found in large thickets, chiefly on stony hillocks and flats. The *Euphorbia Tirucalli* is the most abundant, and is a pretty large tree with a stem more than  $\frac{1}{2}$  a foot in diameter. Another form which deserves notice are the bambu tickets. They are all thorny bambus and are found mostly on the barren, rocky mountain-ridges,—for example on the bays of Chempi and Sumbawa, on the Chewu &c. They are not so pretty as the bambu clumps on the Smeru and the Salak &c on Java; which are of an entirely different kind of bambu. Those on Bima lose their leaves every season. Their stalks are not very thick and hang over very much. They therefore obstruct the way

and make it difficult to travel through them. They are of very little use for economical purposes.

I have already mentioned that grass and lallang fields are not wanting. The Wabo range, the slopes of the Dongo, the Pajo and the Tambora, the Setemper range &c are covered by them. They generally spring up in places where the jungle has been burned and cut down.

## 2. *On some Systematic Characteristics of the Vegetation of Sumbawa.*

I mention here as characteristics those features in which the flora of Bima and Sumbawa differs from that of Java, without distinguishing all new or peculiar plants. This can still the less be determined, because a number of the plants found here are yet wholly undescribed and unclassified. The researches of Botanists in Europe will fix what is really new. It appears to me that the sea on the coasts of the island and the salt waters are richer in Algæ than those of Java. Other water plants of higher formation are more abundant here; such as many Hydrillas, and especially two kinds of a new species of the family of Podostemeæ. These are probably the already known species of Lemnopsis of Zippelius. I had further the satisfaction to ascertain the peculiar fructification of the Enhalus. This plant, like the foregoing, grows under the water of the sea.

Fewer ferns are found on Bima and Sumbawa than on Java. This is the case also with the Orchidæ, and in general with all pseudo-parasites, so that I only found in the country three kinds of Loranthus. I found one true Aloe on the rocks in the valley of Sapi and in the bay of Bima. Beyond the usual plantations of palms the country is poor in varieties of the family, which is the case also with the rattan (Calamus). The Piperaceæ are also scarce. I do not recollect to have seen a single oak (quercus) in the mountain forests. All the plants which grow on Java above 8,000 feet are entirely wanting, as are also the rhododendrum, ranunculus &c. The island is particularly poor in Myrsinæ. I saw only two Ardisia and one Algiceras. Almost as unfrequent are the Anonaceæ so numerous on Java. On the other hand, the country is rich in those plants which grow readily on the shore,

in the sand, between stones and especially on dry and sunny spots. These are mostly plants with thick, juicy and fleshy leaves. To these belong the *Salsola*, the *Salicornia* and numerous *Portulacacæ*, amongst which are not fewer than 3 *Trianthemas*, 2 to 3 *Glinus*, 2 *Portulacca* and 1 *Mollugo*, making 12 to 13 kinds of plants of this family, while on Java only 10 are to be found.

Here, also, is the native place of the *Capparidææ*, of which I found 8 or 9 kinds, while there are scarcely so many on Java. A new discovery is also a small plant, of the European species of the *Epilobium*, which grows on the top of the Tambora. It is the first kind of this species which up to the present time has been observed in the Archipelago. As in all parts of the Archipelago, we find here in abundance the families of *Compositææ*, the *Malvacææ*, *Euphorbiacææ* and *Papilionacææ*.

### 3. *The principal cultivated and useful plants.*

These I will treat more in a botanical point of view, reserving for another portion of this sketch, the details relating to their culture and use. I will first mention plants which furnish food. The plant which here furnishes the most indispensable article of food is the rice-plant. It is cultivated in the same manner as on Java, at the same season, and in the same three chief varieties and numerous sub-divisions.

The next in importance to the rice is undoubtedly the Maize; indeed in some parts it is preferred to rice, and in general is more cultivated than on Java.

As in all parts of the Archipelago there are many kinds of pulse (kachang) planted on Sumbawa, especially the *kachang ejou* (*Phaseolus radiatus*.)

Of roots which furnish flour, we find the same kinds as on Java—chiefly the edible *Aroidææ* (*Colocasia*) the *Batatas* and the *Dioscorea* or the *Gadung*.

European potatoes are not planted; European peas and salad are sometimes grown at Bima. All the natives make use of the same plants which are used on Java as vegetables—the most common being the leaves and fruit of the *Kellor* (*Moringa pterygosperma*) and the *Portulacca*.

Of the *Cucurbitacææ* the most common are the gherkin,

gourd (*Labu-ayer*) and the watermelon; the real melon is never met with.

The most usual of the edible fruits are different kinds of Jambu (*Jambu-biji*, *Jambu-ayer*, *Jambu-bol* &c.)

The *Jambu-monyet* (*Anacardium occidentale*) is much larger and sweeter on Sumbawa than on Java, and is eatable.

The *Pisang*, *Manga*, *Nangka* and *Durian* are found in abundance. The *Mangas* are better than those in the west of Java. The *Belimbing* is also larger and when young is used as a vegetable.

We also find the *Sour-sop* on Bima, the *Duku*, the sweet *Sangar minto* in the forests of the South, the *Jerok* (Citrus) of different kinds, especially the *Jerok besar*, which however is not so good as that of Bali and Batavia. The *Maja* (aegle *Marmelos*), here called *Bila*, is found in the jungle growing on the dry hillocks. *Mangostins* and *Rambutans* are nearly unknown. The natives were not aware that the fruit of the *Erioglossum edule*, which is plentiful, and that of the raspberry (*rubus*) were edible.

I may mention, lastly, the grape which is cultivated at *Silah*, in the kingdom of Bima. The plant was introduced by an Arab. It was formerly so extensively grown that the fruit used to be sold in the market at Bima, but at present the cultivation has greatly diminished.

Amongst the oil-yielding plants the *Coco-tree* occupies the first place. Next follows the *Kanari-tree*, which grows in great abundance in the jungle on the *Dongo* range, and lastly the different kinds of *Jarak* (castor-oil plant). One kind, the *Ricinus communis*, is cultivated, the other (*curcas purgans*) grows in the jungles in large quantities.

Amongst the sugar-yielding plants and those from which liquors are obtained, I will place first the sugar-cane, several kinds of which are planted in the kingdom of Bima.

The *coco-tree* furnishes the *tuak*,—the *Lonthar* palms the greatest quantity, however,—the *Gomutie* palm very seldom; this is also found in much less plenty than on Java and Celebes. The juice of the *Lonthar* palm is chiefly made into sugar.

A very stupefying liquor, called *brum*, is prepared from rice.



Coffee is grown all over the country but in small quantities,—on Bima and Dampo, principally in the country Dongo Pajo, and on Sumbawa on the Ropang range of mountains.

Cloth is only made from cotton and of one species exclusively, the *Gossypium herbaceum*, which is extensively planted and yields an abundant produce.

Rope and thread are prepared from the Ramé (*Urtica diversae* sp.), from bambus, from the filaments of lonthar leaves and from the fibres of the coco-nut.

The following are the plants which yield dye-stuffs. The sapan wood, and the *Morinda* (*bracteata* and *tinctora*) which is found plentifully in the campongs. It is called Binkuru on Bima. Enough of Indigo is grown for use in the country.

The Safflower or Kassumba (*Carthamus tinctorius*) for red and orange dye, is grown largely on Bima and is also exported.

The Kayu Tegerang or Chira (probably a *Trophis*, although I saw neither the flower nor fruit) in the kingdom of Bima, yields a dirty yellow and mixed with indigo and alum a green dye. It grows here and there on the higher hills.

The plants principally used for native medicinal purposes, are—the Suren (*Cedrela febrifuga*) and the *Millingtonia hortensis*, both as a remedy for fevers. The Bidara puti or Bidara paît (*Strychnos ligustrina*), is found plentifully in the country; its wood is strongly bitter; its powers are, however, unknown to the natives.

Of the woods the principal is the Jati tree. The Javancse Sono or Angsana wood (a *Pterocarpus*) is scarce, but another variety of the same species, called Nara batu, is very plentiful on Bima. On the shore the gigantic Jamplong abounds and many kayu-sawo and *Cordia subcordata*, that is, the Prono Soda so highly esteemed on Java. All three furnish beautiful wood for furniture. I may also particularly mention the Suren, the Renga and the Maje only found on Sumbawa—good and durable woods for building and also the Rondu on Bima. It is scarcely necessary to describe at length the bambu, the most useful among useful plants.

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## RAFFLES AND THE INDIAN ARCHIPELAGO.

THE following Correspondence, extracted from the Pinang Records, contains an outline of the plan submitted by Sir T. S. Raffles in 1814, when Lieutenant-Governor of Java, to the Supreme Government of India, for the improvement of the Native States in the Eastern Archipelago, and the views formed thereon by the authorities in Pinang and India. The means proposed by Raffles to be used, were rather of an arbitrary nature and it was therefore as well that they were not sanctioned. He fell upon an infinitely better plan afterwards, when he established the free port of Singapore.

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To the Hon'ble William Petrie, Esquire,  
Governor in Council,  
Prince of Wales Island.

Hon'ble Sir,—Having this day submitted to the consideration of the Supreme Government my ideas relative to the Native States in the Eastern Seas, and the measures best calculated to complete the suppression of Piracy, I request to propose the subject to your notice, as one which is mutually interesting to the Government of Prince of Wales Island and to this colony, and on which the superior authorities may be also desirous to receive your opinion and judgment, previous to the adoption of any final plan or arrangements.

2. The principles of my suggestions on this subject have been that nothing can tend so effectually to the suppression of piracy, to the encouragement and extension of lawful commerce, and to the civilization of the inhabitants of the Eastern Islands, as affording a steady support to the established native sovereigns and assisting them in the maintenance of their just rights and authority over their several chiefs and along the shores dependant upon their dominions.

3. It appears to me that the adoption of this principle, and the establishment of British Agents, accordingly, at the leading ports, would gradually change the barbarous and uncivilized life of the people who inhabit the shores of these islands, and, united with the beneficial effects of lessening the means of plunder and securing

the exertion of legal superior authority, gradually tend to agricultural improvement and to the prosperity and interior trade that naturally must follow.

4. With a view to carry this principle into effect, it seems evident that an indiscriminate resort of traders to different parts of the Malay islands should be prevented, because it is by the irregular traffic thus carried on that the petty chiefs are enabled to render themselves independent of their sovereigns and to form establishments that uniformly depend chiefly on piracy for their support. This would probably be prevented were the acknowledged native princes supported in maintaining their due authority, while the establishment of fixed ports at which alone the European trade could be carried on, and where an established custom house would ensure an adherence to regularity, would remove the source from whence the petty chiefs derive their support, and at no very distant period would amply repay any temporary sacrifice of trade, if such should seem likely to happen, by the introduction of civilized habits and the wants and luxuries which those habits demand.

5. It is not necessary for me, however, to enter more fully into this discussion, more especially as your Hon'ble Board are well acquainted with the subject, and will doubtless be prepared with many arguments that may have escaped my observation, but I request to suggest to you that as the subject has been submitted to His Excellency the Right Hon'ble the Governor-General in Council, an advantage may arise from a communication of your sentiments being also in His Lordship's possession.

6. Adverting therefore to the uncertainty of political events which renders it prudent that whatever arrangements may be decided upon should be determined without unnecessary delay, and conceiving it probable that it might be satisfactory to the Supreme Government to receive your opinion on a question so important to the British interests generally, and to the Governments of Prince of Wales Island and Java in particular, I have informed His Lordship of the present communication, which is made to avoid the delay that might arise by the reference for your sentiments and opinion being made in the first instance from Bengal.

I have &c.

(Signed) Thomas Raffles.

Batavia, 18th February, 1814.

*Minute by Mr Phillips,\* the 7th May, 1814.*

Until the conquest of Java, and the consequent direct intercourse which has ensued between the ports of that Island and those of the Malayan States beyond the Straits of Malacca, the British authorities had but partial and imperfect knowledge of them. The records of this Government therefore do not supply materials on which well grounded opinions might be formed on the question now referred, in consequence of which I have sought for information from respectable persons, either at present or heretofore engaged in traffic with the chiefs and the people of the ports to the eastward of Malacca, and the result of those enquiries, supported by the generally received opinion of the character of the people, induce me to form an opinion, offered with deference, that any attempt of the British Government to restrain or regulate their domestic trade, would engender dissatisfaction if not disgust against ourselves, more likely to irritate than lessen the sanguinary habits of a wandering and adventurous people, long accustomed to predatory as well as piratical warfare among each other, but seldom opposing their force against British vessels unless the aggression was on our side, which has been too often the case. At present and for several years back, the eastern commerce has become better understood, and the Europeans engaged in it have established a confidence that is daily becoming more mutual, and may in a very few years be expected to effectuate civilization without the risk of involving Government in the various broils direct political or commercial interference might bring about among Chieftains, whose petty attacks on each other have hitherto as little affected the commerce of this Island, as the battles of the Rooks and Kites in their forests.

With this impression, and a conviction that the measure of introducing Residents upon their Princes unsupported by a military force, would on every occasion of sudden jealousy or distrust expose the British representative to assassination, I deprecate its adoption: and even did not this apprehension oppose the suggestion, I should object to it on the ground that the personal influence of such an officer, solely dependant on the Malayan Government for local support, would frequently be

\* Member of Council at Pinang.

doubtful and precarious, and if fully established hold out to the European such an invitation to monopolize the trade of the port, as few would resist unless so liberally remunerated by the Company for their service, as to render the establishment a very heavy pecuniary burthen.

Possibly, mild and admonitory letters from the British authorities to the Malayan sovereigns and petty independent Rajahs, might discourage their own depredations or their countenancing the piratical branches of their families, who generally are the leaders of the banditti that infest the eastern seas, and should this fail of success, all prows of a warlike description should be prohibited from entering the ports in the British possessions if met by British cruisers navigating the seas.

The ports of Siac, Rhio, Lingin, Borneo Proper, Sambas, Pontianak, are resorts of the marauders, but should it be deemed expedient to address the Chiefs more generally, I should wish that in addition to the states before mentioned, the Rajahs of Perak, Salangore, Tringanu, Calantan, Koti and Passier should be included.

(Signed) W. E. Phillips.

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*Minute by Mr Erskine, the 7th May, 1814.*

In order to have been enabled to offer an opinion on the propositions now submitted to our consideration by the Java Government of establishing British Residents and Custom Houses at the Malayan Ports to the eastward, it would have been material to have known at what port or places it is intended, and also the probable extent of their Commercial concerns &c &c.

It has already been recommended from home, and also by the authorities in this country, to cultivate a good understanding and maintain a friendly intercourse with the Native sovereigns, from motives of obvious policy. By inculcating and encouraging a spirit and disposition to trade and affording facilities to do so, appears to me well suited for such purpose. The manner now suggested of confining the General Eastern, or Malay Trade to stated and particular ports, appears very difficult to be strictly carried into effect, and inexpedient or injudicious if freed from

difficulty. It is true the ships and vessels resorting thither from India may be placed under such orders and restrictions in their intercourse to the Eastward that they could not deviate from the injunctions under which they act, but I doubt much whether any and what regulations could be framed so as to prohibit the native prows from navigating in those seas or coasts, and if they could be thus forcibly excluded they are necessarily driven to renew their habits and dispositions to acts of piracy. If the propositions should fail, the open and avowed *fair trader*, acting under the authority of the Government in India, would alone be exposed and subjected to the endless variety of such embarrassing restrictions.

It is obviously also of great advantage that a trader should be enabled to deal *direct* with the immediate consumers, instead of being obliged to go to other ports with articles of supply which are absolutely known to be intended for *another* settlement, because a tax or duty must be levied to remunerate the intermediate agent. I believe some arrangements have lately been entered into regarding the future supply of Sambas via Pontianak, in which an express stipulation to this effect is made: there are also other considerations in appointing British agents which ought scrupulously to be guarded against, i. e. that of prohibiting them from interfering either directly or indirectly with the trade, or monopolizing. To do this effectually requires pointed and particular attention; at the same time, some means must be devised for remunerating adequately those persons, who might be numerous, and this fund, whether falling upon the Export or Import trade, imposes a certain grievance in the first instance for a problematical advantage. Besides these, the proposition ought to come from the native Sovereigns with their own views of the subject and of combining and connecting their ports for the purposes of trade, and it would then be for the consideration of the British Government what advantages or facilities might result, or injurious and embarrassing difficulties take place. I annex hereto an extract from a minute I recorded in March 1813, shewing the destination of the opium received here, and I have looked in vain over it for any place where I could venture to recommend such an establishment as is now suggested.

(Signed) J. J. Erskine.

*Part of paper alluded to in foregoing Minute of Mr Erskine,  
7th May, 1814. The 20th March, 1813.*

As having reference to this subject, and with a view to showing the extent and variety of intercourse we have between this Island, with proximate and distant places, in the article of opium alone, I take the liberty of stating what may be considered a regular annual distribution of one year's sales of produce.

Imported into Prince of Wales Island .....	900 chests.
Exported to Sangora, Siam and China.....	120 do.
Tranggau .....	30 do.
Calantan .....	20 do.
Patani .....	20 do.
Perak and Salangore.....	40 do.
Queda .....	20 do.
Siac .....	10 do.
Malacca .....	10 do.
Assahan, Batta Barra, Langkeeh, Jiddee, and boats to China.....	40 do.
Acheen and Soosoo, &c.....	100 do.
Bencoolen, Padang, &c.....	100 do.
Rhio .....	50 do.
Lingin and Sinkep .....	30 do.
Banca .....	40 do.
Palembang and Jambi.....	50 do.
Pontianak .....	50 do.
Pahang .....	10 do.
Buoomsam?.....	10 do.
Sambas .....	40 do.
Moutparra?.....	30 do.
Passier, ——— and Bonthian.....	30 do.
Junk Ceylon .....	10 do.
Pulo Pinang .....	30 do.

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890 chests.

Chests supplied from Calcutta 30 do.

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860 chests.

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China and Macao.....	2,700
Java, &c.....	650
Sooloo, Macassar, Bally, Lombock, and Banjarmassin .....	600
	<hr/> 3,950

Grand Total..4,810 chests.

I have reason to believe the foregoing tolerably accurate, it evidently points out the advantageous situation in which this Island is placed.

(Signed) J. J. Erskine.

13th March, 1813.

*Minute of the President.*

As my colleagues in the Government, Messrs Phillips and Erskine, have in their separate minutes so fully expressed my sentiments on the subjects on which our opinions are called for by the Lieutenant Governor of Java, it is not necessary for me to say much more upon this reference. Until my arrival on this island, I was but very generally and imperfectly informed of our connections and intercourse with the Malay states, of their political dependencies, pursuits, and character. I had heard of unsuccessful attempts on the part of the British Government of India to interfere with those powers, which had, I believed, been attended with no advantage to the public and considerable loss to the commerce of individual traders. Since my appointment to this Government I have drawn nearer to the subject, and it became my duty to make myself acquainted with the character of the neighbouring Malay states and their commercial and political relations to the British Government, which naturally led to my resorting to every source of information from whence I could derive knowledge of the measures adopted by the Government of Java for extending the British influence amongst the Malay powers, for the improvement of commerce and the suppression of piracy. These subjects I have reviewed with an unbiassed mind, and it is with concern, but not with diffidence, that I acknowledge my dissent from the



opinions of Mr Raffles, and my conviction that his repeated attempts to interfere with the Malay states to the eastward of the Straits of Malacca, his different attacks upon their rivers and settlements, his interference in their internal government and regulations, will prove extremely prejudicial to our eastern trade, will excite to more general acts of piracy the inhabitants of the Eastern Islands and unite them in general hostility against the English traders. I understand there is only one solitary instance of an act of piracy committed against an English vessel, that was taken several years ago and carried into Borneo, but delivered upon the requisition of the Resident, who was then in charge of this Island. My opinions on these subjects I have formed on the information of merchants who have traded to the eastward for the last 20 years, from the Captains of His Majesty's Navy who have been employed on expeditions from Java against the Malay states, from the commanders of country ships who have long navigated in those seas, and from the best informed military officers who have served in this unfortunate warfare in which so many valuable lives have been lost. On these authorities and from facts which have been brought within my own view, I have thought it my duty to record this opinion, and to add that I consider Mr Raffles's plan or expectation of suppressing piracy as altogether chimerical and impracticable. Sooner might he succeed in exterminating these people, than to compel them to abandon what is I believe interwoven in the habits, pursuits and character of the Malays; when those who know their language and history, inform me every man is a pirate professionally from the prince to the boatman. It would be a more laudable and perhaps a more easy attempt to endeavour to change the character of the people, to wean them from their vicious habits and propensities, to introduce amongst them the rudiments of civilization, to point out the means of supporting themselves and their families by agriculture, the working of their mines, the cultivation of those articles which would be sought for in commerce, and above all, by endeavouring, by means very different from coercion, to ameliorate their government and to improve the situation of the people. I am aware that the idea may appear Utopian, and that it may be said, I am recommending a chimera not less wild

than what I have imputed to the Lieutenant Governor of Java, but my information induces me to think otherwise, and as my authorities are good, I have not adopted the opinion merely on my own speculation.

I recommend that copies of these Minutes be transmitted to the Supreme Government, with a short letter to accompany them.

(Signed) W. Petric.

Fort Cornwallis, the 6th May, 1814.

To Charles Asscy, Esquire.

Secretary to the Government of Java.

Sir,—His Excellency the Right Hon'ble the Governor-General in Council, having had before him your letter of the 21st January, and the letter from the Lieutenant-Governor of the 11th February, with the several documents accompanying them, and this government having deliberately considered the representations of the Lieutenant-Governor in these and in former dispatches on the same subject, His Lordship in Council is now prepared to convey to the government of Java his sentiments and resolutions on the questions submitted to him.

2. The Governor-General in Council observes that the views of the Lieutenant-Governor, communicated in the despatches in question, embrace a very extensive range; for the leading proposition in Mr Raffles' Minute is understood to be that settlements should be formed, and an administrative government be established on the part of the Honb'le Company, on the Eastern Archipelago, totally independent of the government at present existing in Java and the other Dutch possessions lately acquired by the British arms.

3. The Governor-General in Council observes that if there were any plausible reasons for entertaining the proposition, it would be necessary to enquire, as a preliminary step, in what manner it is intended to form the projected settlements; for as it is not proposed to advance any claims derived from the Dutch by virtue of our late acquisitions, these settlements must be established either by conquest, or by cessions under treaties with the native chiefs, or by the occupation of a territory which may be considered to have no immediate proprietor. The Governor-General in

Council does not however deem it essential to enter into this question, because the proposition is liable to other objections, which must preclude its adoption.

4. The Governor-General in Council observes that if Java and the other Dutch Islands should remain in the possession of the British government, there can be no motive whatever for establishing another Government in the Eastern Seas, because the possession of these islands will sufficiently secure the ascendancy of the British power in those seas, will afford every necessary protection and facility to the commerce carried on by British subjects, and will enable the administration established in these islands, with the aid of His Majesty's Naval Force, to take all those measures which would be practicable in any other state of things for suppressing piracy in the Eastern Seas.

5. If on the other hand, Java and the Moluccas should be restored to the Dutch, the introduction of British Agency, and the formation of new settlements in the immediate neighbourhood of that power, would be regarded by the Dutch with extreme jealousy if their establishment should not be considered as an actual encroachment, and the consequence must be that we should be engaged in perpetual disputes, that our commerce would be designedly obstructed on all occasions, and that a resort to arms might become necessary to resent and to repress the wrongs done to individuals.

6. And if it be not politically just or politically expedient to attempt the formation of new settlements after the restoration of Java to the Dutch, the Governor-General in Council is at a loss to conceive how it can be just or expedient to attempt their formation at the present moment, for it is not to be supposed that an attempt to supplant that nation during our temporary sway over Java would have the effect of reconciling them to an encroachment, and if they have no rights or pretensions to the territory which it is proposed to occupy, the Settlements might be formed under circumstances less likely to excite jealousy and animosity after the restoration of their colonies.

7. The Governor-General in Council has not, moreover, seen reason to conclude that the native chiefs and inhabitants of the Coast of Borneo and the other Islands in the Eastern Seas, are in

reality desirous that we should interfere in their concerns; and even if it be supposed that particular chiefs, whose territory has been usurped or encroached upon by pirates and others, should be anxious to obtain our assistance, an alliance with these petty Chieftains would be liable to involve the British Government in the worst species of warfare. We should be compelled to take part in the disputes between neighbouring Chiefs, as well as in the disputes between those Chiefs and their dependants and subjects, and it might frequently happen that the British Government would be called upon to employ its force in the support of violence and injustice.

8. The Governor General in Council observes, that our settlements have already been so far multiplied, and have been extended to such a distance from the seat of the supreme authority as to render it extremely difficult to superintend with effect the administration of these remote dependencies; and if no other objections occurred to the plans of the Lieutenant Governor the injunctions of the Hon'ble Court of Directors and the declared will of the Legislature must be considered to preclude, or at least to discourage, the extension of our territory in India.

9. The Governor General in Council cannot perceive any sufficient reason for the distinction proposed by the Lieutenant Governor to be made in favor of the Hon'ble Company; but if there had been any particular motive for forming establishments in the Eastern Seas on the part of the Company for commercial or other purposes, the late Act of Legislature has drawn a line, which excludes the Hon'ble Company from the acquisition of Territory for the Company except in the instance of the Island of Banca, His Lordship conceiving it probable that Mr Raffles proposed only to establish factories on the Coast of Borneo and in the other islands.

10. The Governor-General in Council observes that the leading object of the Lieutenant-Governor's plans seems to be to change the habits and to improve the condition of the piratical inhabitants of the Coasts of Borneo, but although it may become the object of a benevolent policy to civilize a barbarous people, to fertilize a territory which has been long desolate and waste, and to extend to distant regions the benign influence of British Laws and

regular government, it is evidently necessary in engaging in such undertakings that this government should previously enquire—whether the projects be capable of execution, whether the risk of failure may not be greater than the chance of success, whether in the course of pursuing a speculative good a certain mischief may not be produced. The fair picture drawn by the Lieutenant-Governor would be miserably changed, if it should be found in the sequel, that the valuable lives of British seamen and British soldiers have been wasted and sacrificed in the hopeless attempt to introduce civilization and order among a ferocious people, inhabiting a climate which is known to be baneful and destructive to the European constitution. The crews of the ships which were employed in the late expedition against Sambas furnished decisive evidence of the fatal effects of the climate of Borneo.

11. The Governor-General in Council adverting to these several considerations, is of opinion that the appointment of a political agent for the administration of our affairs in the Eastern Islands is not at all necessary at the present period, and His Lordship cannot therefore adopt the proposition.

12. The Governor-General in Council is of opinion also that the appointment of British Residents at Pontianak and at other places on the Coast of Borneo, is quite unnecessary, and His Lordship directs that Mr Hunt and any other officers of this description who may have been nominated by the Lieutenant-Governor, with the exception of the Resident at Banjarmassin, be immediately recalled. Any intercourse which it may be necessary or convenient to maintain with the Chief of Pontianak or other Chiefs on the Coast of Borneo, can easily be carried on by correspondence or by the occasional deputation of an agent on the part of the Government of Java, or the Government of Prince of Wales Island.

13. The Governor-General in Council is of opinion that Mr Hare may be continued in the situation of Resident at Banjarmassin, with a moderate salary and establishment, for the purpose of superintending the public affairs on the Coast of Borneo and of furnishing the Government of Java from time to time with such information as may enable them to judge of the measures which it may be proper to adopt for the suppression of

piracy, and for the encouragement of the commerce of the Eastern Islands.

14. As it is not intended to encrease Mr Hare's public allowances, the Governor-General in Council is of opinion that it will be necessary to permit him to engage in private trade ; but His Lordship in Council is decidedly of opinion, at the same time, that Mr Hare should not be allowed to exercise any exclusive right of trade, and that it would be more consistent with just principles if an officer enjoying the influence of a public station, could be restricted from trade altogether.

15. The Governor-General in Council cannot avoid noticing in this place, that although so many arguments have been urged in favor of extending our connections in the Eastern Islands, few facts have been adduced for the purpose of shewing the nature and extent of the commercial advantages expected to be derived from a more enlarged intercourse with the inhabitants of those Islands. It is well known, that an extensive trade has long been carried on between India and the Eastern Archipelago ; but the Government of Java have not explained in what particular quarter, or in what particular articles, an extension of this commerce is both desirable and practicable.

16. The Governor-General in Council has paid great attention to the reasoning which appears to have determined the Lieutenant Governor in Council to confine the trade of Borneo to three principal ports ; but if his Lordship were convinced of the policy of this measure (and he is by no means so) the justice of it would still be questionable.

17. The Governor-General in Council is of opinion, that the Government of Java possesses no authority which could justify them in placing an interdiction upon the trade of any ports of an independant state not actually engaged in hostilities against the British power. The numerous petty Chieftains who hold territorial possessions on the extensive coast of Borneo, owe no allegiance to the British Government, and if it were possible to keep their ports in a state of blockade, (and this, it is apprehended, could not be effectually done) a proceeding so oppressive and unjust must necessarily irritate them against the British nation and must produce at least a disposition on their part to retaliate by acts of piracy and violence.

18. The Governor-General in Council accordingly directs, that the orders of the Government of Java confining the trade of Borneo to particular ports be immediately withdrawn; and that all interference in the affairs of the petty chiefs of that Island be as much as possible avoided by the Colonial Department.

19. In directing that the ports on the Coast of Borneo be immediately opened, the Governor-General in Council is not prepared to say that this order should be immediately extended to the Port of Sambas, because if the chief of that place or Pangeran Anam his brother, who is understood to be the efficient, head of this petty state, should persist in acts of hostility and piracy against British subjects, the British government will have a legitimate right to blockade his ports and otherwise to punish the aggression. But even in this instance it would be desirable that the acts of piracy and outrage, which may have been committed by Pangeran Anam against the persons or property of British subjects, should be substantiated by satisfactory evidence, and it will occur to the Government of Java that any representations on this subject, which may be made by the Chief of Pontianak, the neighbour and rival of the Chief of Sambas, must be received with great caution and reserve.

20. The Governor-General in Council is willing to hope that no final arrangement has been concluded with the Chief of Borneo Proper, and His Lordship can see no sufficient reason for forming an intimate connection with that chief, and still less can this Government admit the propriety of our undertaking to enforce his authority over other Chiefs of the Island, or over any of his former subjects, who may have succeeded in establishing an independence. We should have no satisfactory grounds for judging of the rights of the parties, our interposition would probably be viewed with jealousy and distrust, and we might be engaged in a petty warfare which must be attended with expence and with the loss of valuable lines, and which could not possibly promote any rational object of British policy.

21. The Governor-General in Council observes that the views of the Lieutenant-Governor seem to have comprehended the Islands of Japan; but if the scheme of superseding the Dutch in

the islands adjacent to Java, be liable to objections, those objections must be considered to apply with equal or greater force to the project of supplanting them in the trade with Japan. Our competition in that quarter would be viewed with peculiar jealousy, but although an open competition could not be objected to by them on any just grounds, this Government are not disposed to prosecute the design of opening the trade by any indirect means.

22. If a commercial intercourse can be established with Japan by a fair and open proceeding, the Governor-General in Council is far from thinking that the opportunity of establishing it should be neglected, nor is his Lordship aware that the Dutch nation have acquired any exclusive right to the trade which it is incumbent upon the British government to respect. The Governor-General in Council is inclined to think that the Lieutenant-Governor greatly overrates the advantages to be derived from a trade with Japan, but as this question will be adverted to in a separate despatch, His Lordship in Council considers it necessary only to add in this place, that this branch of the Lieutenant-Governor's plans does not tend to strengthen and recommend the general proposition, and that if the acquisition of the trade of Japan can justly be esteemed an object of importance to the British nation, the attempt to establish a commercial intercourse may be prosecuted by other means.

I have &c.

(Signed) H. St. G. Tucker,

Secretary to the Government.

Fort William, 28th May, 1814.

Resolved that the above letter be acknowledged, and that the satisfaction of the Board be expressed to the Supreme Government at finding the sentiments of its members approved by that authority, on the occasion to which the above letters relate.

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[The following despatch from the Pinang Government shows the feelings of jealousy which that government entertained towards Raffles, who had so recently filled a subordinate place in their own service.]



To George Dowdeswell, Esquire.

Chief Secretary to Government—Fort William.

Sir,—I am directed by the Hon'ble the Governor in Council, to submit to the notice of His Excellency the Right Hon'ble the Governor-General in Council, the circumstances of a case which has recently occurred in this neighbourhood, in which government considered it needful to exert an interference, and which as it embraces points of some importance to the interest of Prince of Wales Island, is considered proper should be submitted to the Supreme Government, and to the Hon'ble the Court of Directors.

2. The following detail of the circumstance above alluded to, with such observations on the general subject as are called for by a due consideration of what has occurred, will it is hoped evince to the Supreme Government that the exercise of authority and power on the part of the Government of Java, which is principally the point of reference, is not in conformity with general practice.

3. It appears that several Chinese boats belonging to an individual of this island named Che Im, in the course of their traffic in various articles of merchandise and with the native ports to the Eastward ultimately touched at Lingin where they was seized and detained, in common with many others which had previously arrived at the same place from Malacca and other quarters, by the Company's Cruizer "Aurora" under the orders of the Government of Batavia, with no other alleged cause than that frequent acts of smuggling had been practised there of late.

4. A petition from the individual who was principally interested, gave the first intimation to this government of the circumstance which had occurred, and as he was a person who for a considerable number of years had resided under the British protection at Prince of Wales Island, and who has had public dealings with government on many occasions, and whose property moreover was principally invested in the speculation which was thus likely to be frustrated, the Governor in Council felt a double inducement to extend the interference that might be needful to recover his property, if unjustly seized, and on the other hand to evince a desire of continuing the exercise of that influence which had been usually exercised by this government in the Straits of Malacca.

5. With the imperfect information however which the Governor in Council had before him at that period, it was considered advisable to refer the subject to the commandant at Malacca, who being more generally accustomed to correspond under the orders of the government with the native states in that neighbourhood, was the more likely to obtain accurate information on a point which the board considered in a material degree as connected with its authority.

6. As the grounds on which this subject was referred to the commandant are fully detailed in instructions transmitted for his guidance, I am directed to submit for the information of His Excellency in Council a copy thereof, which will explain at the same time the opinions and sentiments which were at that period and are still entertained on the occasion which gave rise to that reference.

7. I have the honor, at the same time, by order of the Governor in Council, to enclose copies of letters and other accompaniments which have been subsequently received from the acting Resident at Malacca, in reply to the orders above alluded to, and it appears evident therefrom, although the praws belonging to Che Im have been at last permitted to depart, that the Government of Batavia do actually consider the Rajah of Lingin as under their special controul and authority, and the power arising therefrom has been in consequence delegated to the British Resident at the settlements of Minto and Palembang, who considers himself authorised to give orders and instructions to the Rajah, which the latter is in like manner required to obey, without any intimation of such a measure having been conveyed to this Presidency from the Government of Java.

8. The Honorable the Governor in Council has considered it a customary portion of his duty to correspond with the Eastern Native Princes in the Straits of Malacca, of which those of Rhio and Lingin are the principal, and the influence of this government has been exercised with them in general cases whenever circumstances rendered the same necessary, and since the period of the capture of Malacca this system has been persevered in. The measures however now pursued have the effect of altering the ordinary forms of correspondence and of substituting a new and unaccus-

tomed channel of communication with the Malay states to the eastward. If in this instance the Lieutenant-Governor of Java has acted under orders from the Supreme Government, the Governor in Council bows with submission to superior authority; if not, it is apprehended that he has stepped considerably beyond the limits of his local jurisdiction.

9. The immediate influence of this government has been more especially and in repeated instances exercised with the Sultaun of Rhio, to whom that of Lingin is tributary, in as much as a most valuable and beneficial trade has been the effect derivable therefrom. The central situation of those places for facilitating the commerce carried on between the Straits of Malacca and the Gulf of Siam, which is of considerable extent, renders it the more necessary, if not indispensable, that the same system should be continued when has proved so advantageous in former years, and by the restriction of which by the Government of Java, at the present period, considerable detriment has been occasioned to the commercial interests of this presidency and the neighbouring Settlement of Malacca.

10. In addition also to the inconveniences resulting from the measures above alluded to, it appears that even the prows and small native trading vessels from this port are subjected in their traffic with the Malay states to the eastward, to all the vexatious demands and the clashing of rival interests, which as they could be little expected so were they the less prepared for. It is the opinion of the Governor in Council that so long as the interference of Java in the politics of the Malay Rajahs in the Straits of Malacca is exercised, so long will the consequences be felt in the continual depreciation of the commerce and revenue derivable at this Presidency and Malacca from the eastern trade.

11. From the view which the Governor in Council has taken of the present subject, I am directed to add his opinion that the measures adopted at Java in regard to Rhio and Lingin, if not sanctioned by orders from the Right Honorable the Governor-General in Council, are absolutely and directly an uncalled for and certainly an unnecessary interference with this government in the general and ordinary exercise of its executive duties, and if persisted in may advance to the neighbourhood of this island, a tendency to which was but lately manifested even in regard to Malacca,

which settlement is immediately subordinate to this Presidency.

12. The Governor in Council considers it advisable to confine his considerations on the present subject to the question whether the right assumed by the Java Government to interfere with any portion of the Straits of Malacca be agreeable to the tenor of its authority. It would be in the power of this government to enter much at large on the extent to which those measures have diminished the public revenues of this government. But on such a question, while it may be advisable to refrain from its agitation at present, the Governor in Council feels that he should be wanting in the due discharge of his public duty if he suffered the material and most objectionable point to remain as it at present stands, and to submit without any reference to a continuation of the same system of interference which the present representation is intended to prevent, if possible, a recurrence of.

13. The Governor in Council is not aware of any political reasons which may operate to render expedient any interference of the Government of Java with places so near Malacca, as the states of Rhio and Lingin. Such an interference must tend to hamper the native trade of this neighbourhood, and must operate to cause either a considerable diminution of commerce or forcibly to turn off that commerce to a new channel even against the inclination and wishes of those engaged in it. A general reason has been assigned for the detention of native vessels at Lingin in consequence of a system of smuggling in which it was said that port was principally concerned. Such a general reason might be assigned for the same measures to be pursued with all the Malay Rajahs in the Straits of Malacca, all of whom in a certain degree have been addicted to the same practice and to prevent which a regular establishment could alone be effectual. But even allowing such a reason to be well grounded, the Governor in Council directs me to add that he trusts a representation from this government, and a proper course of measures from hence, would have weight in the suppression of those practices in a degree equal at least to what may be produced by the interference of force from Java.

14. The subject noticed in the preceding paragraph will be fully detailed to the Honorable the Court of Directors, and I am directed to express the hope of the Governor in Council that His

Excellency the Right Honorable the Governor-General in Council will not consider his time unnecessarily engaged by the consideration of a subject which, with the authority that has been delegated to this government from the Honorable the Court of Directors, it would be improper and inconsistent to preclude from a public representation.

15. In conclusion I am directed by the Honorable the Governor in Council to submit his request, that such orders and instructions as may in the opinion of the Supreme Government be needful on the subject of this reference, may be communicated as early as practicable and convenient.

I have &c,  
 (Signed) W. A. Clukey,  
 Secretary to the Government.

2nd February, 1814.

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[The following papers appear to evidence a great scarcity of coin in the public treasures at Batavia and Pinang at the period to which they refer.]

From the Lieutenant-Governor in Council at Batavia,  
 To the Honorable William Petrie,  
 Governor in Council,—P. W. Island.

Honorable Sir,—In consequence of a pressing demand for silver for the pay of the troops, and the expences incident to an expedition at present on foot to the eastward, We find it impracticable to comply with a requisition which has been made to us, by the Resident of Banca, and as the demand on that is urgent, we are induced to request your aid, and that if the state of your treasury admits, you will have the goodness to forward to the Resident of Banca, on account of this government, a lac of Spanish dollars.

Should the state of your treasury not admit of this issue, we would suggest that cash to this amount be obtained by you for bills on Bengal on account of this government, a measure which would have been adopted here had it been practicable.

The urgency of the demand from Banca is extreme, and as serious consequences might arise from a failure in payment to the miners, we have authorized Captain Court to dispatch the "Antelope"

Cruizer to Prince of Wales Island, in order to obtain this supply, and in the event of the full amount which we have requested not being immediately at command, we request that the "Antelope" may be returned with such portion as may be convenient.

We have the honor to request, that the enclosed despatch to the Supreme Government, on the subject, may be forwarded by the earliest opportunity.

We have &c.

(Signed) Thos. S. Raffles,  
W. Kope.

4th May, 1814.

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*Minute of the President.*

I desire to be honored with the opinion of Council on the best measures to be adopted on the present communication from the Government of Java :—

If the sum required by the Resident at Banca can be supplied from the meagre resources of this island.

If under the present immediate pressure, we should return the "Antelope," with all the specie we can possibly spare?—or if we shall send the cruizer to Bengal, with the letter from the Government of Java to Lord Moira, and a representation of our inability to answer the demands of the Resident of Banca, and, if we determine on this measure, which I am disposed to recommend, shall the "Thetis" or the "Antelope" be sent on this service? Captain Court will probably have pressing occasion for the "Antelope," in the present embroiled state of the Malay powers.

If the stores &c required by Captain Hall can be supplied, I beg to recommend their being immediately issued.

(Signed) W. Petric.

May, 29th.

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*Minute by Mr Phillips.*

Banca being the station to which the "Antelope" is attached, and her services there being necessary, she should, I think, be returned with such pecuniary aid, in furtherance of the object of that establishment, as the means of this government will admit of.

The season of the year being that in which cash is usually scarce, and other local circumstances rendering it peculiarly so just now, it is not probable that the full extent of the requisition can be complied with, but I should suppose even 30 or 40,000 dollars would be an acceptable supply and one that could be made without inconvenience to the settlement; in which belief I recommend cash to that extent being sent without delay, as also bills to the amount required by the Resident in his favor, drawn by us on the Supreme Government.

The Java dispatches should be forwarded by the "Pinang" cruiser, in preference to the "Thetis," and that immediately.

(Signed) W. E. Phillips.

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*Second Reference from the President to the Council.*

As Mr Phillips thinks that this government possesses the means of supplying the Residency of Banca with an immediate remittance in specie to the amount of 40,000 Sp. dollars, and that this sum should be transmitted without delay, I will not, nor ought I, to oppose my opinion to his; I will only say, that the result of my enquiry on this head, leads to a different conclusion, and that the withdrawal of this sum for the time would create much individual embarrassment and probably public inconvenience. In thus stating this, it is far from my idea to offer any opposition to the measure, but beyond this sum I request the Council to pause before they advance further and deprive us of the very small pittance of specie which may remain on the island. After an opulent and wealthy man dissipates his fortune by extravagance, or by injudicious, wild and chimerical speculations, he has no claim upon the charity of his poorer neighbours, nor would it be very wise in them to distress themselves by improvidently administering to wants of his own creation.

I never dreamt of relieving the present emergency by an application to Bengal, but I referred to what I conceive to be our indispensable duty, to lose no time in communicating to the Supreme Government the alarming situation of the public interests to the Eastward, and in particular in making known to Earl Moira the information I have received from two respectable and disinterested

public officers,—one of them the friend of the Lieutenant-Governor of Java,—what makes it highly probable that the expedition against Bali, and unceasing interference and innovations of that officer in the Government of the Malay States, will produce a general combination of these Powers against the British commerce and interests in the Eastern Seas. This combination may not take place, but it is certainly provoked and excited by the measures of the Java Government.

(Signed) William Petrie.

Hill, 30th May, 1814.

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*Further Minute by Mr Phillips.*

On the present occasion it is by no means my province to canvass the measures pursuing to the Eastward; it is enough to know that a sister colony is in urgent want of the aid which it is presumed this government possesses the means of supplying, in part, if not to the extent required. I am therefore still of opinion if our treasury cannot supply specie, that application be made to the merchants and monied men on the island, for whatever sum can be conveniently raised on our bills on the Supreme Government, and that should this measure succeed to the extent of 30 or 40,000 dollars only, such be immediately forwarded by the "Antelope" to Banca as also bills in favor of the Resident to the extent he requests.

The Java dispatch should also, I think, be forwarded without loss of time to Bengal, and as there is less chance of the "Pinang" being diverted from returning here than the "Thetis," I suggest the dispatch of the former.

(Signed) W. E. Phillips.

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*Minute by Mr Erskine.*

I obtained a hasty perusal of the letter from Java, and the two from the Resident at Banca, early on Sunday morning; since that time until the present moment (Tuesday, noon) I have neither seen the papers, nor the minutes by the honorable the President or Mr Phillips.

I now beg respectfully to offer my opinion that to the extent of 30 or 40,000 dollars should, if it can be obtained at the usual



exchange or spared from the treasury here, be dispatched for the purpose so urgently set forth in the present application.

Without having recourse to native merchants and increasing the usual rate of exchange, I do not think a greater sum than what I have stated, could be raised here at present.

I have no means of knowing nor it is my purpose to enquire, by what cause these embarrassing difficulties have arisen, but I think that such a sum is calculated to relieve (for a time) any exigent disbursements at Banca.

I would beg also to suggest the expediency of sending a few chests of opium, to ascertain whether any of the eastern trading prows, (very few of whom have visited us this season) may be found in the neighbourhood of Banca, who might incline to purchase for ready money that drug; and by that means raise funds—and if the Resident of Banca be authorized to make a repayment to us by tin, which could advantageously be forwarded to China. I would also recommend, (if this suggestion is adopted) to desire the “Thetis” may stop at Malacca, and that a confidential servant (Mr Macalister or Mr Clubley) should proceed to confer with Major Farquhar upon the situation of affairs generally, (including this matter) and return forthwith and make his report, and that either the “Antelope” or “Pinang” be dispatched to Bengal.

I cannot conclude without recommending that the utmost promptitude and dispatch may in both cases be used.

(Signed) J. J. Erskine.

31st May, 1814.

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2nd June, 1814.

The Board having taken into consideration the subject brought to their notice by the communication above recorded, and willing to afford every reasonable aid so emergently requested by the Resident at Banca, for the immediate supply of silver treasure to the extent of a Lac of dollars, as likewise the bills to be drawn by this government and made payable to his order.

Agreed therefore that the Accountant be desired to draw out the 6 sets of bills as enumerated by the Resident, to the extent of Sicca Rupees 15,000, and to place the same to the debit of the Government of Java; and that the Assistant to the Treasurer be authorized

to receive into the Treasury such cash as may be procurable for bills on the Supreme Government, and the amount so procured to be put in boxes properly secured and ship the same on board the Honorable Company's cruizer "Antelope", informing the Board the extent of such shipment and making out the Invoice and Bill of Lading, and transmitting the same to the Secretary with the least practicable delay.

The Board being of opinion that a few chests of opium would meet with ready sale in the neighbourhood of Banca, direct that a consignment of six chests of this drug be made accordingly to the Resident of Banca.

The Honorable the President proposes to the Board, that the opium be purchased from Forbes and Brown, that application be made to those gentlemen to this effect, and the reply having been received during the sitting of council, the same is recorded.

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## NOTICE OF MR CRAWFURD'S DESCRIPTIVE DICTIONARY.

Mr Crawford has completed his literary labours in connection with the Indian Archipelago by "A Descriptive Dictionary of the Indian Islands and Adjacent Countries." This work is, to a certain extent, based on his "History of the Indian Archipelago" published so long ago as 1820, and which was the result of twelve years investigation of the subject, the first three having been passed in Pinang as a civil surgeon, and the next six in Java as one of the chief officers of the government during our temporary occupation of that Island. In the year following the publication of the History, Mr Crawford was employed as envoy from the Indian Government to the Courts of Siam and Cochin China, (1821, 22) and his account of his embassy contributed greatly to our knowledge of those countries and their inhabitants. In 1823 he succeeded Sir Stamford Raffles in charge of Singapore, and remained there till the beginning of 1826 when he was appointed Civil Commissioner on the part of the British Government at Rangoon and in the following year went to Burmah as ambassador. The additional seven years knowledge and experience of the Archipelago and the neighbouring countries thus acquired have been availed of in Mr Crawford's present work, but as it embraces a field much beyond his personal observation while in the east, he has prepared himself for it by a study of many of the principal writers on the numerous objects of which he treats. The distinctive value and merits of the Dictionary consists in the author, after half a century's preparation, having skilfully and neatly collected and condensed into one volume a vast amount of information which has hitherto been accessible to those only who were in possession of the library of Dutch, English, Spanish, Portuguese, French and German books in which it was contained. We do not affirm that Mr Crawford has fully examined all these works, or that he has not overlooked important geographical papers in the Dutch periodicals. But while it may be objected to particular articles, such as those on the large and interesting islands of Gilolo and Ceram, that they are somewhat perfunctory in treatment, and are based on the meagre notices of some of the older writers and not on the more accurate and scientific accounts of recent explorers,

there can be no question that, as a whole, the work is as admirably executed as it is unique and valuable. It is the first of the kind that has ever been published, and as the labour of one man long past the prime of life, and following so closely on the completion of such a formidable task as the Malay Dictionary, it is one of the most striking instances of literary skill and industry that we can call to mind.

It is hardly possible to convey any adequate notion of the contents of a work which is not merely geographical, but embraces notices of almost every subject of interest connected with the Archipelago. All the important productions of the islands are separately described, and much useful and curious information, scientific and commercial, is communicated respecting them. There are articles on iron, gold, tin, silver, copper, lead, coal, arsenic, saltpetre, the diamond &c. ; on rice, maize, coffee, tea, the cocoanut, sago, areca, nutmegs, cloves, pepper, cubeb, ginger, cinnamon, cacao, tobacco, capsicum, gambier, sapan wood, the gomuti, bamboo, durian, champada, jambu and other fruits ; on hemp, rami, indigo, benzoin, camphor, catechu, wax, honey, oils, damar, dragon's blood, gambouge, lac, alum, ambergris, tripang, bird's nests, civet, tortoiseshell &c. The native arts and usages are described under various heads,—weaving, dyeing, fisheries, dress, trade, ships, navigation, chess, the compass, arms, bow and arrow, shield, spear, sword, sling, mail armour, money, interest of money, weights and measures, marriages, funerals, the drama, music &c.

The domestic and the more important wild animals are each treated of, and some of these articles are amongst the most interesting in the volume, from the mode in which the names and the distribution of animals are made to throw light on the history and ancient connections of the different nations. The horse, ox, buffalo, hog, goat, sheep, deer, dog, cat, rat, porcupine, tiger, elephant, cock, goose, duck, casawary &c has each an article allotted to it.

Short biographical notices are given of the most distinguished Europeans who have connected their names with the Archipelago.

The geographical articles are the most important, and in the compilation of many of those which we have examined great pains

have been taken. Some of the longer ones,—as those on Java, the Philipines, Borneo, Luzon, Siam, and Malacca,—are excellent. They display great knowledge and research and are carefully and elaborately executed. The articles relating to the Timorian and Moluccan Archipelagos and to Celebes are, with some exceptions, the least satisfactory. Very full and trustworthy information respecting many of these islands and their inhabitants has been furnished during recent years by the local officers of the Dutch Government, and by members of the scientific missions which are almost constantly employed in different portions of the Netherlands Indian territories. A similar neglect of Dutch authorities appears even in articles relating to Sumatra and its islets, to Java and Borneo. A reference to Valentyn's great work, supplemented by the later contributions of his countrymen, would have increased the value of many of the articles. If Mr Crawford is less indebted to our Dutch neighbours than he might have been, he has freely and diligently consulted the most recent and authentic Spanish account of the Phillipines, and the articles relating to that Archipelago are by far the best that exist in the English language. The Descriptive Dictionary is indeed the only English work in which the latest statistical information respecting the Spanish portion of the Asiatic islands can be obtained.

The work is ethnographical as well as geographical, and the numerous notices of the races and tribes of the Archipelago are of high interest and value. Mr Crawford's History long ago placed him in the first rank of ethnographers, and his statistical genius, combined with a great aptitude in seizing the more striking national peculiarities and presenting them in clear and succinct language, are conspicuous throughout this new work. We cannot award the same praise to his *ethnological* views. During the thirty six years that have elapsed since the History was published, ethnology has made great advances, but Mr Crawford adheres to opinions formed even before Humboldt's work threw a new light on the relationship of the insular languages. The older tribes and languages of Tibet, the Himalayan vallies, the hill ranges of India and the Burmah-Cambojan peninsula, have since been investigated and the connection between them and those of the islands into which this ethnic province runs, is so intimate, that the ethnology

of the Indian Archipelago is found to be associated, in a very considerable measure, with that of the Himalaic or Tibeto-Cambojan region. If the less civilised tribes of "adjacent countries" referred to in the title of the Dictionary had received a share of Mr Crawford's attention, he would hardly have sought to resuscitate opinions formed forty years ago, when the true relations of these tribes and their languages were not suspected, and when we possessed scarcely any authentic information respecting the language of one of them. Mr Crawford gives great prominence to the insular languages, stoutly maintains his old theory as to their mutual relationship, and makes much ingenious use of vocabularies in speculating on the history of arts and the derivation of animals in the Archipelago. But if he had extended his comparisons of vocables to those used by the adjacent tribes of the mainland, he would not have found in the names for the fowl in Javanese, *manuk*, *pitik*,—for the dog in Malay, *anjing*, in Rejang, *kuyo*, and in Javanese, *asu*, for the goat in Malay, *kambing*,—for the horse, in Javanese, *jaran*\*—for the hog in Malay, *babi*, in Sunda, *badil*, in Ende, *la*, and in Tagala, *pagil*,—for the cat in Malay, *kuching*,—for the ox in Malay and Javanese, *sapi*,—for the buffalo in Malay, *karbau*, in Sunda, *munding*, and in Bugis, *tedung*,—for the elephant in Malay, *beram*,—for the tiger in Javanese, *machan*—proofs or indications of the animals which bear them, or of their nomenclature, being indigenious. Instead of these vocables being all native, as Mr Crawford asserts, they are all still current in the vocabularies of continental tribes of the Tibeto-Cambojan race, to which the Malays and Javanese themselves belong. Of course the identity in race is not established by the possession of some common vocables. It shows itself by a community in physical form, arts, usages and in a great mass of words of all classes, between the tribes of the continental and insular divisions of the province that have been least modified by the influence of alien civilisations and languages. The veteran historian of the Archipelago not only tells us nothing of this, but is so little tolerant of conclusions different from his own, that his habitual courtesy deserts him when he forces himself to the rare

\* The Malay name, *kuda*, which Mr Crawford supposes to be a corruption of the Sanskrit *ghura*, is Dravirian, *kuda*.

concession of alluding to them at all. In the elaborate and admirable article on the Philippines, in which no notice is taken of Humboldt's demonstration of the radical identity of the language with that of the African negroes of Madagascar, this passage occurs:—"Some writers have fancied the negritos to be aboriginal inhabitants of the Archipelago and the fairer race to be intruders from some unknown country, but for this hypothesis there is not a shadow of evidence, historical or lingual, and it must be regarded as the mere dream of the inventors. For anything known to the contrary, both the Malay and negroe race have an equal claim to be considered as aborigines." Whether the opinion in question was in its origin visionary or fictitious, it happens to be that which almost every ethnologist of note now holds, with this qualification that, while none assume the negroes to be aborigines in the strict sense, and some consider them to be traceable to another province, all are satisfied that the brown tribes were later occupants of the islands. Surely Mr Crawford, with his established reputation and after his rich gifts to science, could have well afforded, while re-asserting his own early opinions, to treat with a little more benevolence conclusions which, sound or baseless, are now in the ascendant.

Few general readers, however, will concern themselves with the soundness or otherwise of Mr Crawford's ethnology, while there are none, even amongst the best informed, who will not profit by a frequent reference to the Descriptive Dictionary. As a ready source of accurate information of the most varied and substantial kind, conveyed in an agreeable, condensed and lucid style, the book is invaluable, and it is sure to be soon found in the hands of every European in the Archipelago.

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## MAP OF MALACCA.

THIS map was made for me, in the beginning of the year 1853, by Mr Valberg, a surveyor in Malacca, and formerly in the service of government. The whole territory had not been surveyed by Mr Valberg, and he very properly declined to become responsible for the correctness of the map. As however, there is no other map of equal correctness, as far as it goes, I am induced to hope that its publication in the Journal of the Indian Archipelago may be acceptable. The map is founded on old Dutch Records, and is improved by more recent and accurate surveys, as to particular localities, where it has been found necessary by government to procure correct measurements: for instance, the general outline of the coast has been laid down after the marine surveys of the late Captain Congalton and Mr Thomson. The districts about the town have been repeatedly surveyed by Mr Valberg; and he assures me that he has been careful to make the plan as correct as possible in that respect. The locality at the scene of war in Naning is presumed to be correct, having been founded on military surveys, undertaken with special reference to that war. The tin district of Cassang was surveyed by Mr Valberg in 1852, consequent on arrangements for an improved organization of the police force in that district. Mr Valberg assured me, in general, that he had taken every precaution to correct the map, by all the partial surveys which have been made, and, from his long residence in Malacca and familiarity with the concerns of his own profession, there is reason to believe that he is acquainted with all the surveys made for the last thirty years.

The boundary between Rumbow and Naning is laid down according to the treaty with the chiefs of Rumbow, 9th January 1833, (see 2nd vol. of Newbold, p. 450); while the continuation, along the Johole boundary, is taken from the treaty with the Johole chiefs, dated 26th August 1833. This last Treaty with Johole has never been published, to my knowledge; and I therefore add a translation of it, made by myself when at Malacca. The treaty, dated 15th June 1833, given at page 459 of Newbold's 2nd vol., it will be observed, shut us out from Mount Ophir. I do



not know the precise locality of Labo Penawan, there referred to, but believe it to be about as I have marked it, on the river, in a line with Bukit Putoos and Bakong Chondong, a remarkable tree now fallen, but long used by the Malays as a boundary mark. The second treaty was made with the same chief Leilah Perkasah, but with separate tributaries, if they may be so termed: Syed Saban being the leader of the first party, in the June treaty, and Rajah Balang of the second, in August. The name is incorrectly written Johore in Newbold, above referred to,—it is a clerical error for Johole.

The localities about Mount Ophir are corrected by observations made by myself, on a visit to the interior in the beginning of 1853. I found, by compass bearing from the summit of Mount Ophir, that Bukit Batang Malacca bore N. W. by W.  $\frac{1}{2}$  W., and judged the distance to be about 15 miles, and Bukit Putoos  $\frac{1}{2}$  a point north of this, or N. W. by W. The position of Jamintah is laid down, by observation from Mount Ophir, correctly as to longitude, but by mere guess, as to distance. The courses of the Mount Ophir tributaries of the Muar river are placed by supposition: and, as the road lay through dense jungle, without any attempt at a survey, are not entitled to much credit. The same remark applies to the upper portion of the Muar river. The two remarkable loops are however laid down by bearings from Mount Ophir. The lower part of the Muar is taken from old surveys.

In presenting this map to the readers of the Journal, it is obvious that apologies for its incompleteness are necessary. I must say that I had great doubts as to the propriety of publishing it; and these doubts were only overcome by the knowledge that none better is procurable; and, from present appearances, it is not likely that the deficiency will be immediately supplied, so it is hoped that the reader will accept the map, as it is intended, to supply a present want, pending a future opportunity; when we may expect to have government maps of this Settlement, on the same liberal scale as those for Pinang and Singapore. T. B.

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Treaty, defining the boundaries of Johole and Malacca, made on the 26th day of August 1833, between the Hon'ble Robert Ibbetson, Governor, and Samuel Garling, Resident Councillor, for

the H. E. I. Company, and the Datu Punghulu of Johole, Leilah Perkasah.

(Signed) R. Ibbetson.

(Seal of E. I. C.)

The Honorable R. Ibbetson and S. Garling, on the part of the East India Company, and Dutu Punghulu of Johole, Leilah Perkasah, in order to settle the boundary between Johole and Malacca, agree to make the undernamed boundary between the countries; that is to say, a line, to run from Bukit Putoos in a straight line, to Bukit Hulu Batang Malacca, and thence straight to Gunong Ledang (Mount Ophir). On the right side of this line is the territory of Malacca, and on the left side that of Johole. This arrangement shall be in force between the East India Company and Johole, so long as the moon and sun exist. It cannot be broken through or altered, and it shall also be considered binding on the future possessors of these countries, from this day forward. Moreover the contracting parties, having arranged on the above named boundaries, agree to reduce the affair to writing. Two copies are to be made; one to be kept at Malacca, and one at Johole, in order to preserve a correct account of the transaction, with the seals and signatures of the contracting parties.

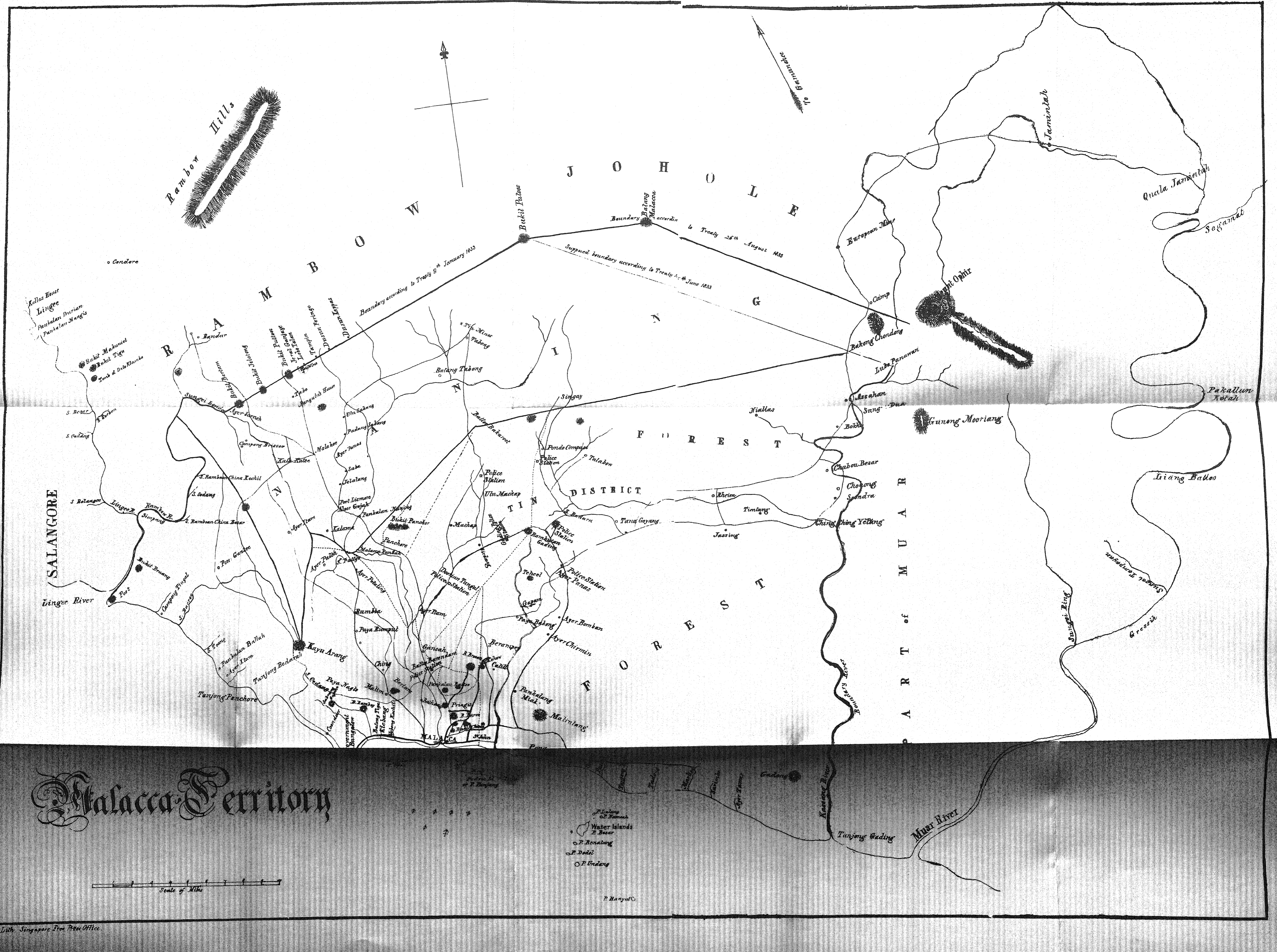
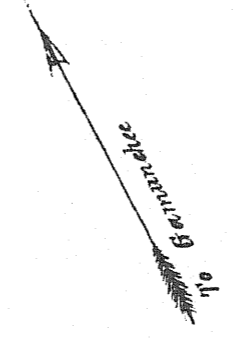
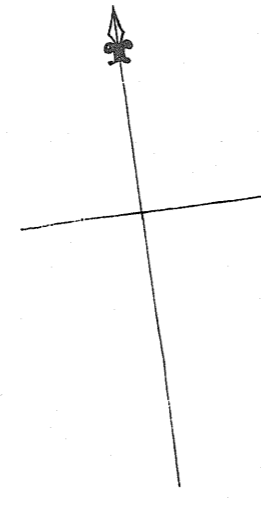
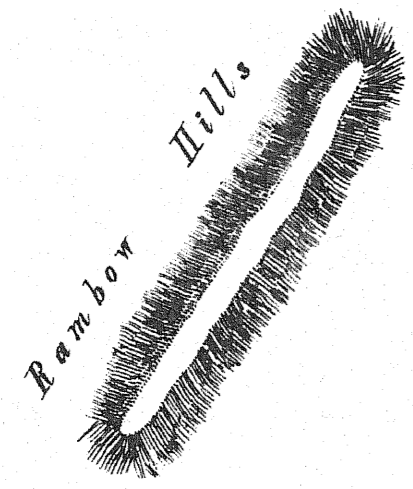
Dated 26th August 1833—14th Rabialakkir 1249—Signed Rajah Balang—Maharajah Indah—Maharajah Senarah and Baginda Rajah.

Witnesses—Hajee Abbas Bin Khadir, Hajee Ahamed Bin Jamaloodin.

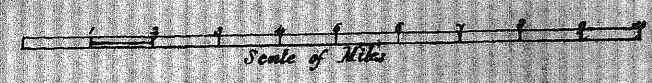
(Seal) Datu Punghulu Johole, Bin Wala Datu Kool, &c.

Translated by T. Braddell, at Malacca, on the 12th Feb. 1853.

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# Malacca Territory



- Water Islands
- P. Benang
- P. Dadi
- P. Uday

W. H. Murray



POLITICAL AND COMMERCIAL CONSIDERATIONS RELATIVE TO  
THE MALAYAN PENINSULA AND THE BRITISH SETTLE-  
MENTS IN THE STRAITS OF MALACCA.\*

CONSIDERATIONS ON THE SIAMESE CONQUEST OF QUEDAH AND PERAK.

DURING the long period of twenty-four years, namely, from 1786, the complaints to the several Superintendents and Governor of Pinang by the King of Quedah, of the oppressive demands of Siam, were frequent and oft repeated. In July 1810, he writes to Governor Bruce—"The country of Quedah being small, and situated in the neighbourhood of the extensive kingdom of Siam, it has been the custom established from time immemorial, to send tributary presents of gold flowers to Siam once in three years. In my time, the Government of this country, arising from internal circumstances, has become extremely exposed to the heavy requisitions imposed by the Siamese, unprecedented in former times, and for two or three years past, the pressure of these demands has been extreme. I was unable to avoid them, their people being numerous, and the country of Quedah being insufficient to oppose them by force, I fulfilled their requisitions. When the Burmahs attacked Salang, it was rumoured abroad, that I had engaged in the service of Siam, and I have thereby acquired the severe resentment of that power, a matter of evil consequence to my country. Having behaved well in this business, their demands have increased beyond measure, and I am proportionably distressed. It is reported the Burmahs will return, and if not that the forces of Siam will go to meet them. They have required from me a supply of prows and men completely equipped with arms and ammunition. These proceedings are repugnant to my mind, and tend to lower me in the estimation of neighbouring princes. They are also injurious to the character of the Company, inasmuch as, notwithstanding the friendship and alliance which has subsisted from the time of my grandfather to the present, I am exposed to demands so oppressive from Siam. For in former times, this country was not exposed to danger and distress from Siam, but in my time first became endangered from them. The relations of friendship and alliance between my

\* Continued from p. 372, of VOL VIII.

father and the powerful Company, have been transmitted to me. How then can I become weak and distressed? I am decidedly desirous to meet personally with my friend, in order to effect a settlement of these affairs, it being improper for me to continue longer under such circumstances. Former Rajahs who were not connected with the Company, were neither reduced to weakness, nor difficulties." Some months afterwards, in again soliciting the assistance of the British Government to oppose the Siamese encroachments, he says,—“I now remind my friend and request to know whether my friend intends fulfilling the Treaty or not. It is necessary that my friend should be prepared and not make light of this communication, for the Siamese are numerous, and consider none superior to themselves. True it is they possess many countries from Cochin-China to Tringano; my friend will duly consider and reflect. Even should they not attack Pinang, yet when Quedah shall be destroyed, my friend will be distressed in many ways.”

In applying for instructions to the Supreme Government about this time, the Government of Pinang represented “on the authority of generally received tradition, it is admitted by the best informed, the Quedah has from the immemorial acquiesced in the paramount authority of Siam, and as a token of vassalage has triennially sent to the king of that country the present of the Boonga mas, or golden flower, notwithstanding which, such tribute was received and given more as an assurance of continued friendship than an acknowledged (or till now claimed) right of feudal service.”

The Siamese, engaged perhaps with other more important affairs, seem to have allowed the King of Quedah a respite from the oppressions with which they had visited him during the few preceding years, as we do not find any further complaints from October 1811, until August 1813, when he addressed the governor to acquaint him, that on a late occasion when the Bindahara of Quedah had been deputed to the Court of Siam, to present one of his sons, in order, as he says, to put an end to the long subsisting troubles of Quedah, it was determined by the King of Siam and his Ministers to attack the country of Perak, and to add it to the number of his Majesty's other tributary states. The correspon-

dence of the King of Quedah from this period, namely, August 1813, until the close of 1818, is principally relating to the conquest of Perak, which was long insisted upon by Siam, and at last, after various evasive pretences, reluctantly complied with by Quedah, as the king expresses himself—"I did not go to war with Perak, of my own will, but by the orders of the King of Siam, of whom I was afraid, and therefore conquered Perak."

The conquest of Perak can be justified by no precedent or example, nor by any one circumstance of a palliating nature. It was a wanton and most unprovoked aggression, and the execution of the odious and unjust measure was forced upon a power too weak to refuse compliance with a mandate which it in vain attempted to evade. It is but too evident, that there was a deep policy in this scheme of the Siamese forcing a power which yet possessed sufficient strength and means, to have made possibly not an unsuccessful defence, if the Siamese proceeded to open hostilities, and which would, at all events, have offered considerable resistance, to expend it's men and resources in the subjugation of an inferior state, by which itself would fall an easy prey to the ambitious of the designing government. The political agent of the Pinang Government who proceeded to Perak in 1818, clearly established that from the most accurate inquiries he was enabled to make there was no tradition of the Perak state ever having sent a Boonga Mas to Siam, or having ever been, in the remotest degree, dependant. The King of Quedah exhausted every topic of counsel to persuade the Rajah of Perak to comply, but in vain, and in reply to the admonitions of the Pinang Government, the Perak chief said, "No such custom has been handed down to me from past times, as the sending of a Boonga Mas either to Siam or Quedah," and positively refused compliance. In another letter he says, "I am a king of the ancient race. I am he who holds the Royal Sword and the Dragon Betel Stand, and the Shell Fish which came out of the Sea, which came down from the hill of Segangtang," and again,—“I am the oldest of all the kings of these parts, such as the King of Siack, Salengore, Rhio, Quedah and Tringanu. With respect to the desire of the Kings of Siam and Quedah, I cannot consent to it, should war even be the consequence. I must try my strength with them, for such a custom

was neither heard of, or attempted to be imposed on Perak. Now for the first time the Rajah of Quedah demands a Boonga Mas to be sent to Siam, in an unaccountable manner. I will not comply with this his desire. Had it been usual from time past with Perak to send a Boonga Mas to Quedah, or Siam, I should have done so, according to ancient custom." In November 1816, the King of Quedah's messenger returned from Siam with a positive order to attack Perak. The King of Quedah says,—“It greatly afflicted me to execute this order. It is not with my good will that I attack Perak, nor at all my wish to become an enemy of that Rajah, but only to avert mischief from my country.”

A force was accordingly despatched to Perak by land under the Bindahara, or General, and a fleet under the Laksamana, or Admiral. In October 1817, the King of Quedah acquainted the Governor of Pinang, that his forces had subdued half the country. In June 1818, a confidential Agent of the Pinang Government was sent to persuade the Rajah of Perak to comply at once with a demand which he had not the power long to resist, but after a long stay and numerous conferences, he was unable to obtain any satisfactory assurances that he would comply. In September 1818, the Quedah forces took complete possession of the Perak country. A few months afterwards, the King's Son, Rajah Mooda, was raised to the Throne, and the Boonga Mas, the object of contention, was sent to Siam, via Quedah. The old king did not survive many months after having made a powerful, but ineffectual resistance. Such is the history of the subjugation of the Perak state by Siam. It has however been again wrested from the Siamese by the former conqueror, the Rajah of Salengore, who has established the King, Tajudin, the lawful sovereign, and he now maintains his possessions unmolested for a time, under the continual apprehension however of a renewal of hostilities from the Rajah of Ligore.

Soon after the capture of Perak, a lengthened correspondence which took place on the subject of throwing open the navigation of the rivers Mirbow and Mooda, and extending the Honorable Company's territory on the opposite shore, evinced fully that the King of Quedah was under the greatest apprehensions from the King of Siam, and fearful of incurring the displeasure of that haughty Potentate by making any further cession. Matters



continued rather more tranquil than they had been for some time after the conquest of Perak ; but towards the close of 1821, they began to draw to a crisis, which was, indeed, in a great measure anticipated by the Government of Pinang, which having received intelligence of hostile preparations on the part of the Siamese, communicated the same to the Rajah of Quedah, with a suitable admonition and precautionary advice. As early as February 1821, the Governor thus wrote to the King—" I hasten to communicate to my friend, that intelligence has reached this place from Siam, stating the King of that country to be engaged in the equipment of about 6,000 troops destined to march to Quedah. This army, it is said, will embark at Bangkok for Sangora, from whence it is to march overland. It is further stated, that some remissness in the transmission of the Boonga Mas is the reason assigned for this measure ; it is however not improbable, that as the Burmahs have declared war with Siam, this movement of the troops of the latter power is in view to avail of the situation of my friend's country and vessels to embark an expedition against the Island of Salang. Be this as it may, sincere friendship calls for my immediately communicating the intelligence to my friend, as it reached me from a respectable person very lately from Bangkok."

The King immediately replied to this, that he had heard similar rumours, and learning that the Siamese had come to Satool and Lingow, about 500 in number ; he sent a Pangulu secretly to gather all the information he could and he enclosed his report on the subject. He says "Relative to the Siamese having a jealousy on account of the Company possessing Pinang, it has been so for a long time, and I have often communicated it to former Governors. My friend notices a report of the coming of the Siamese, being occasioned by my not having forwarded as usual the Boonga Mas. If this is the cause assigned it is only a pretext, because there has been some delay on many former occasions ; nor were they angry. The transmission of the Boonga Mas at the present period, has been delayed on account of the epidemic sickness."

The report alluded to is as follows :—" Your Majesty directed

your servant to obtain intelligence relative to the Siamese, and your servant sent a man named Awon, to buy and sell and procure such intelligence on the 13th Rabial-akir. The Chief of the Siamese at Lingow, is Chow Rubut, with 300 men and a few more, who came on the 19th; at Setool, the headman is Umboom Nongta, with about 200 men, and on the 19th Rabial-akir, the younger brother of the Rajah of Sangora came there with 100 followers, intending to equip some prows formerly built there, for which they have collected the necessary materials. What their intentions are is unknown to any of the people of Setool, whom they have not ill used. It is understood, however, that a Burmah army is coming to attack the Siamese by way of Trong, Chingow and Setool, and the latter say, that all the Burmahs in Siam have been sent into their own country. They say also that great numbers of Siamese have died of the epidemic sickness, and that the Burmahs are taking advantage of this to attack them, in which event, they (the Siamese) will send a force to Trong, Kedah and Purlis, and if the Burmahs do not fulfill their intended attack, they wish to go for the purpose of amusing themselves at Pinang. The prows they have built are in Soonghy Baru. My messenger obtained this from a relation of the Chief of Umboom Nongta."

The disastrous events which followed not many months after, and the easy conquest obtained by the Siamese over the Quedah people, who were quite unprepared and over a country whose resources had been gradually wasted and extracted for a series of years, are fully detailed already.

From the foregoing history of the connexions subsisting between Siam and Quedah, we cannot fail to come to the conclusion, that the conquest of the latter state by the best contrived plans that treachery and injustice could devise, can only be regarded as an act of the most unjustifiable usurpation and unprovoked hostility, and such as loudly calls for the interference of a powerful Government like the British. It has lately been observed, in allusion to the present state of affairs of Continental Europe, that, "As the safety of all states depends on the observance of the Laws of Nations, all acts done in avowed and systematical defiance of its principles, gives a right of war to all states against

wrong doers."\* And it was remarked by one of the most distinguished statesmen of the present day, (Earl Grey). "We admit it is the interest and duty of every member of the commonwealth of Europe, to support the established system and distribution of power among the independent Sovereignities which actually subsist, and to prevent the aggrandisement of any state, especially the most powerful, at the expense of another." The turbulent and restless character of the Siamese, and the haughty tone of arrogance they have long assumed, united to the consideration of the state of alarm and agitation in which the British Settlements have been kept since that power became nearer neighbours than formerly, may lead us to doubt whether the neutrality observed by the British Government, and founded on solid and substantial grounds of expediency under the critical and peculiar circumstances of the time, will be preserved for any length of time, and it will be matter of consideration, "whether," as observed by the Reviewer, "if we do not prevent the maturing of plans and the approach of dangers which have already unequivocally disclosed themselves we shall not shortly be called upon to fight in our own defence."

When we advert to the immense quantity of grain, and various other stores, which this ill-fated country supplied during a long series of years to the Siamese forces, that it was at the same time the Granary of Prince of Wales Island, and many of the surrounding states, we must form a very favorable estimate of its resources. Mr Light says, and with truth, that little more than the name of the Company would be required in declaring the King of Quedah under our protection, and his sentiments as well as those of many other competent judges of the time, have been given as to the baneful effects of allowing the Siamese to possess themselves of Quedah. We have already observed that the Quedah country was captured by treachery, and wrested from its rightful sovereign by that very power to which it had done homage, and which, therefore, according to the Law of Nations was bound to protect, instead of oppressing it. We should recollect, that promises of assistance were given to the King of Quedah, as a condition of his cession of Prince of Wales Island, and that in all correspondence during

\* Edinburgh Review, No. 75.

thirty-five years, almost every letter concluded with "Pinang and Quedah are one;" we shall be at no loss, therefore, for a just pretext for interference, if deemed consistent with the policy of the superintending and controuling authorities. If a further cause were wanting, the incessant hostilities, between the Burmahs and Siamese in our immediate vicinity, the consequent interruption of commerce, and the frequent acts of barbarous piracy committed by the adherents of the contending parties upon peaceable British traders, might be assigned with propriety, as a just cause for the interposition of the British power and authority at Quedah, as a barrier between them and thus discourage that incessant warfare which has prevailed between these two nations for such a length of time.

The policy and advantage of extending the territory of the Honorable Company on the continent opposite Pinang, have been warmly argued by some of the Governors of Prince of Wales Island and the subject was ably discussed, particularly by Lieutenant Governor Farquhar, in his report upon the island in 1804. He gives his sentiments as follows—"The advantages to be derived from Quedah, are worthy of separate and distinct inquiry, and if this island is to be made a great naval depot, the following suggestions may eventually be found ultimately connected with the interests of the British Government. In all its extensive plans and operations, the British Government of Prince of Wales Island should keep in its recollection that the immediate wants of the settlement have considerably increased and are likely to become greater every day, and government should then advert to the important circumstance of supplies from Quedah being more within its reach, cheaper to the community and subject to fewer failures than supplies which, by exertions, might be elsewhere acquired. Now as these supplies cannot long be depended upon under the present conflicting authorities of five or six brothers and an uncle, all equally oppressive and independent, the Company, in order to command provisions for Pinang adequate to any demand, must adopt one or other of the following alternatives, viz :

"They must take such a share in the politics of Quedah as to give such a decided preponderance to Tuanko Pangiran (the present king) as will enable him effectually to curb his brothers and

give efficacy to the laws for the security of the Ryots, or they must obtain the 144 square leagues opposite this Island, and pursue such measures for its Government as promise, with the greatest celerity, to be the means of peopling and cultivating it. Were my opinion asked in regard to choice of these alternatives, I should certainly adopt that which placed Quedah under our controul and management, but both will best secure the object.

“As cheapness of provisions is one of the greatest allurements to an increase of population, and as it is from a numerous population alone that the Company can expect the price of labour to be diminished, as well as a permanent and efficient revenue to defray the great expences of their important and extensive plans, this object may be considered as of the last importance, and aided by peace and quiet, it will soon leave no jungle either on this Island or on the Company's dominion on the opposite shore. Taking matters, therefore, on the great scale, the acquiring this territory ought never to be lost sight of. The possession of it, governed under peculiar laws, reserving the customs and usages of the Malays, excepting those that are arbitrary and oppressive, in regard to the rights of life and property, would soon render it populous and productive of provisions equal to all the wants of the Island, provided the Government prohibit for a time all cultivation that interferes with the produce of provisions. This modified Malay Government is better suited to the people and managed at less expence than any other. Their laws will have a received sanction. They will with ease and readiness be submitted to, and ought therefore to have the preference if a speedy population be the object in view. The portion of territory above alluded to, would be boundel to the northward by the ridge of Gunong Jerai hills from Tanjong Jaga on the west, across the lake to the mountains on the east, and thence by a line east and west to the confines of Tringano. To the south the defined boundaries would be the River Carrian\* to the confluence of the River Trase and Tamungong—then along the River Tamungong to the mountains, and thence an east north-east line to the confines of Tringano. To the east the boundaries of Tringano, to the west the Sea, including all the Islands lying south of the east and west line

\* Krian.

from Tanjong Jaga, and those to the northward of a south-west line from the southern entrance of Carrian River." Neither of these judicious plans for effectually securing the interests of the British settlement were ever adopted, but Governor Bannerman in 1818 endeavoured, though in vain, to obtain a much less extensive addition than proposed by Lieutenant-Governor Farquhar, to our territory on the opposite shore.

Colonel Bannerman proposed that the northern boundary should be extended from the south bank of the Kwala Mooda, to ten orlongs beyond the north bank of the Kwala Mirbow, but no protection being stipulated to the King of Quedah, and his dread of the Siamese, although he assigned another cause for the refusal, no doubt prevented a compliance with the wishes of the Government of Pinang.

It may not be amiss to advert here briefly to the several objects which were expected to be attained by the Government of Pinang, in proposing a Mission to the Siam Court a few years ago, not one of which was gained by the Embassy under Mr Crawford in 1822. The first commercial object was to secure a continuance of the unrestricted importation of supplies of provisions from Quedah, on which Pinang had so long depended, as well as from other ports and places in the vicinity of Pinang, in any manner dependent on Siam. The next objects were to negotiate for a fixed and more moderate rate of duties to be levied in all the states under Siam, and particularly Junk Ceylon, to prohibit any exclusive monopoly farms, to permit a free navigation of all the rivers on the Western side of the Peninsula from their mouths to their sources, and to allow an uninterrupted intercourse overland, by means of these rivers, with Patani and the tin countries in the interior, with Ligor, Singora, and all the ports on the eastern coast. The next commercial object was, with a view to encourage the formation at Pinang of an emporium or entrepot for the tin produce of Junk Ceylon, Patani, and Perak, to obtain some remission of the heavy duty levied on the exportation of that article from Junk Ceylon, to open a free intercourse with the tin mines of Patani, whence large supplies were offered to Colonel Bannerman, and where, there is no doubt, almost any quantity may be derived through the Mirbow, Mooda, and Prye rivers; and lastly, to prevent, through negotiations at Siam, the renewal of the Dutch Monopo-

ly of tin at Perak. The letter of the committee in 1818, shows the advantageous means possessed at Pinang for establishing a most extensive tin trade from the countries of Tavoy to Colong. The average quantity of tin exported from Pinang in the seven years preceding 1822, was 16, 300 piculs per annum. A reduction of the supplies from Junk Ceylon, and from Perak, in consequence of the war, as well as the almost total discontinuance of the annual produce of 1,000 piculs from Kwala Mooda, has much reduced the importation of tin. It was also a part of the plan of the present Governor of Pinang, amongst the important objects contemplated, and too numerous to detail, to turn the views of the Siamese Court to the great advantage and practicability of conducting an almost direct overland trade between Pinang and their territories, along the Gulph of Siam, by a route across the Malayan Peninsula, or more to the northward across the Isthmus of Kraw, which is said by one authority to be only 20 leagues broad,\* and it is said by some to be only half a degree broad. Forrest says, that from Pandang Pandang point on the Southern side of the Trang River, it is only two days journey to Singora, in the Gulph of Siam. Between Ligor, Singora, and Trang and the territories of Quedah, a regular communication has long been maintained by means of elephants, but the passage, which occupies six or eight days, might probably be rendered much more easy and expeditious if the roads were improved.

Amongst the political objects, the permission to form an establishment at Junk Ceylon was particularly insisted upon, and also to obtain the cession of the Island of Pankour, near the mouth of the Dinding River. Relative to this plan, the Honorable Resident remarked—"The chance of the Dutch at any time hereafter renewing their establishment at a place so immediately in the vicinity of this port as Perak, and the convenient situation of the Island for collecting the tin of that country, and for preventing piratical fleets seeking shelter in the numerous creeks and rivers in that quarter, have been urged in support of the measure. If this can be obtained without any chance of future collision with the Dutch claims, it will certainly not prove the least advantage in favor of Pankour that its occupation,

\* Tuckey's Maritime Geography, p. 226.

should it ever take place, cannot entail any expence on the Honorable Company."

Not one of the above numerous and important objects was attained; the Ambassador was received with distrust and jealousy, and it would appear, by the accounts which have been published, that nothing more was obtained than a promise not to raise the present duties; and that the arrogance of the Siamese and impediments to a free trade have rather been increased than diminished by the mission. In a work lately published in Calcutta, professing to give an authentic account of the mission,\* it is stated "An engagement has been entered into, not to raise the duties beyond their present amount, but the word of the Siamese is not to be relied upon, and they are only anxious for our trade, that they may commit extortion upon it in their own way. That way is this; they give a public order for a free trade, and a secret one not to deal with the persons so offered a free trade, under a penalty of stripes and fines," and it is afterwards mentioned by the same author,† that "By the treaty entered into with the Siamese, the free admission of British commerce is stipulated for, an engagement entered into that the present duties, amounting generally to 8 per cent shall never be raised, and a pledge given of cordial assistance from the officers of Government. The great object of our Government was to secure such a free trade as is granted to the Chinese, but this could not be brought about, without entering into such political relations with the Siamese, as are at variance with the known principles of moderation acted upon by our Indian Administration," so that we are in fact in the same predicament as before the mission. There is no doubt, that the Siamese having long found the advantages and profit of admitting British subjects to trade at Bangkok, however they may appear to be and really are averse to our political interference, will always find it their interest to carry on an extensive commerce with us, without which the country would soon suffer the greatest inconvenience. They have few or no manufactures and for ages past have been dependent upon the English for their supplies of clothing, opium, &c, and if there was no demand for their sugars,

\* Phipp's Shipping and Commerce of Bengal, p. 155.

† *Ibid*, p. 157.



their pepper, tin, rice, salt, and various other commodities which are carried to the British settlements, and to Europe, the country would soon be reduced to poverty. We may be assured therefore, that, however the Siamese may assume a lofty tone and pretended indifference to the British trade, they are too sensible of its importance to wish any limitation of it, and though it may be possible, that they would rather not see any of our smart ships in their ports, from an apprehension that we have designs upon them, and there may be spies taking an account of their resources and population, still they are aware that the active, industrious, and numerous Chinese settlers, would always carry on an extensive trade in their junks to the British Settlements.

Seeing that negotiations are of little or no avail with the Siamese, it may perhaps be a matter of consideration, whether the British Government should longer delay asserting its rights, and evincing to the imperious power of Siam, that however desirous it has hitherto been to cultivate a good understanding, and promote the interests of commerce, it cannot admit of any indignities or encroachments, which the interference with an old Ally, the refusal of every reasonable proposal for the amelioration of our commercial intercourse, the ungracious reception of the Ambassador, and barbarous treatment of British subjects, sufficiently indicate a deliberate and determined disposition to impose upon the British Government. A very small force would be adequate for the protection of our Ally, for the Siamese are not altogether ignorant of our power, and would tremble when they saw a determination to support the King of Quedah. The king would no doubt voluntarily relinquish any claim to pecuniary assistance, and his revenues, under an improved system of Administration, with the aid of a British Resident, conversant with the language, manners, and institutions of the Malays, would not only be fully adequate to the support of his independence and dignity, but for defraying the expenses of the subsidiary establishment granted him by the British Government.

The advantages of such a connexion are too manifest to be dilated upon. Thousands of poor people would be raised from misery and slavery to comfort, the Island of Pinang would be plentifully supplied with provisions of all sorts for its own consumption, for

His Majesty's and the Honorable Company's ships, and the numerous vessels touching at the islands, the traders would be secure in continuing their adventures to Quedah and the adjacent states, piracy would cease in a great degree, and the Honorable Company might reap immense advantages from the tin mines of Patani, and the Mountains of Quedah, which abound with Tin ore. A very intelligent native who came from Banca, and surveyed the tin mines up the Kwala Mooda, declared, that the produce might in a few years be rendered fully equal to Banca, and offered to establish a colony of miners, but was prevented by the exorbitant demands of the king, who wished to have one-half of all the produce. There is no question the Siamese would speedily be reconciled to the British possessing Quedah, and a lucrative overland commerce might, after a proper understanding, be established to an almost unlimited extent.\* "In the commencement of our political connexion with the Siamese Government," says Mr Crawford, "a firm tone and vigorous conduct will be indispensibly requisite. The Siamese are surrounded by weak neighbours, whom they have subjugated, and to whom they dictate without resistance. This, and their great ignorance of all foreign nations, has rendered them, although essentially weak and puerile, avaricious, vain and arrogant to such an extreme, as to fancy themselves nothing less than the very first nation on the globe. These unfounded pretensions mislead them so egregiously, that it is scarcely safe even to attempt to conciliate them, and thus the most moderate policy on the part of other nations, will always be in danger of being construed by them into timidity and apprehension for their own power. From personal experience of their singular and impracticable character, it is now my firm conviction, that had the circumstances of the time warranted the Pinang Government in promptly repelling even by military force, the threatened invasion of the island, the partial invasion of the opposite coast, and the threatening and arrogant language of the Government of Ligore, that the fears of the Siamese Court would have induced it to have made ample atonement, to have retracted its steps, to have withdrawn its force from Quedah, and even forbore in future from meddling in the affairs of that state."

\* Mr Crawford's report of his Mission to Siam.

Having declared Quedah under our guardianship, it might be proper, in order to tranquillize the other Malayan states to the southward, and to give confidence and an impetus to the revival of a daily languishing commerce, to declare their independence also, and the mere knowledge of the avowed protection of the English, would prevent the possibility of any foreign invasion. In my judgment, not a soldier of the Company would be required to defend them. Proper boundaries would be defined for their separate governments, and treaties entered into binding them against any encroachments upon their neighbour's territory or domain. Commercial alliances might also be formed. These treaties should be calculated to establish a mutual confidence, founded on a community of interests, and a sense of reciprocal benefits resulting to all parties concerned from such an alliance, as suggested long since by Lieutenant Governor Farquhar. There is no doubt all the different states, from the unequivocal disposition of the chiefs, and their respect and attachment to the British Government would readily accede to measures so well calculated to secure their own interests. Possessing then a controuling influence over the several states of Quedah, Patani, Perak and Salengore, by the Pinang Government on one side, and Singapore holding a commanding interest over Johor, which might be extended to Pahang, Packanja, Tringano, and Callantan on the other, the whole Malayan Peninsula, comprehended within the circumscribed limits which I have assigned, would be under our influence, without involving the Honorable Company in one farthing of expence; the riches of the Mines would be drawn forth, and the valuable products with which that fertile tract abounds, be made subservient to the purposes of general commerce, a more extensive demand for our manufactures would be created, and peace and tranquillity, the object of all good governments, restored. It would still be advisable to form a small establishment upon the island of Pankour, to put an effectual stop to piracy in the Straits, to collect the tin from Perak and Salengore, and to afford provisions and assistance to small native traders between Singapore and Pinang, and particularly the numerous vessels from the East Coast of Sumatra, a branch of commerce which merits the greatest encouragement. Having established, as has already

been done, friendly relations with the numerous states from Diamond Point to Siack on the East Coast of Sumatra, the fertile countries on either side of the Straits would then be perpetually pouring into the British Settlements, their precious stores, like the incessant rolling down of the waters by the numerous rivers with which both coasts are interested.

In extending our protecting influence to Quedah, and declaring the other Malayan States under our guardianship against foreign invasion, we acquire a vast increase of Colonial Power without any outlay or hazard, and we rescue from oppression, a countless multitude of human beings who will no doubt become attached and faithful dependants; we protect them in the quiet pursuits of commerce, and give life and energy to their exertions. We shall acquire for our country the valuable products of these countries, without those obnoxious impositions under which we formerly derived supplies from the West Indies. "As it seems generally allowed," says Lieutenant Governor Farquhar, who formerly presided at this Island, "that a trade between a manufacturing nation, and another having few manufactures, and rich in native productions, is advantageous to the former, and as Western India bears that relation to the Eastern Archipelago, a trade with them must be advantageous to us. The riches of Sumatra and Borneo certainly equal either Brazil or South America, and possess the advantage that they may be acquired by a sale of our manufactures without the disadvantage of capital, or precarious speculation, or expenditure of the human species which American mines require." But the riches of Sumatra and Borneo are not much superior to those of the Malayan Peninsula, the mountains of which are one continued bed of tin ore; the finest gold is procured from Pahang; pepper, rice, sugar, rattans, ivory &c. in abundance. In considering the policy of declaring the independence of the states on the Malayan Peninsula, South of the Island of Junk Ceylon, we should look to the possibility, in the event of our delaying to do so, of the re-establishment of foreign influence at Tringano, Callantan, or any of the Ports on the Eastern Side. The French, the Americans, or the Dutch may possibly anticipate us. It must be remembered too, that the Dutch claim, and now exercise Sovereignty over, the extensive

Islands of Java, Borneo, Celebes, the Moluccas, Banca, a great part of Sumatra, and, in fact, appear to be aiming at the entire possession of the Eastern Archipelago. The British Government at present possess only two small islets, and an almost useless post on Sumatra.

If the Malayan Peninsula too, shall fall a prey to the ambitious aggrandizement of the Dutch, or even Siamese, the British Government will scarcely have a foot in this quarter on which to stand.\* Timely precautions are assuredly advisable and necessary; a little longer delay in asserting our rights and putting a stop to farther encroachments, may be attended with the most baneful consequences to British interests, and be hereafter only an unavailing source of regret. We should not overlook that the Dutch have almost excluded the admission of our manufactures exported from the British Settlements in this quarter, into Java or any of the places under their government, for the duty of 24 per cent assuredly amounts to little short of a prohibition. If the Dutch are permitted to proceed as they have lately done, they will have the sole and entire command of the eastern trade, which heretofore was enjoyed, in a great degree, by the Merchants of Pinang and Western India, which materially benefited the commerce of British India, and which added considerably to the revenues of the Company and the State.

\* This was written before the Treaty of 1824, between Great Britain and Holland, by which the former became bound not to interfere with Sumatra and the latter not to interfere with the Malay Peninsula. The nature of our intercourse with Siam, also, has assumed a very different aspect from what prevailed when Anderson wrote, and is now as friendly as it was then the reverse. (1856.)

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## THE GAMBOGE TREE.\*

THE Gamboge plant or tree is woody, with thick ovate leaves, and the natives say that it sometimes grows to be 18 inches in diameter, though generally less, reaching a great height. The plant is not cultivated, but grows wild like the sugar maple in the forests of America. At the commencement of the rainy season parties of the natives go out in search of the trees, and finding one of the proper size they make a spiral incision in the bark on two sides of the tree, at the base of which they place joints of bambu, into which the sap percolates, day by day, for months. It is at first a yellowish fluid, hardening gradually into a viscous and then into a solid state. In the viscous state its fracture is glistening like crystal. In this consists the whole process of its preparation when pure, and on the spot where it is gathered it sells for only 4, 5 to 6 ticals per picul. It hardens in the bambu.

The common means of adulteration is rice flour or the bark of the tree pulverized, but this last is apt to impart a greenish tinge. Sand is also added.

The flowers are said to resemble those of the "egg-plant" and the fruit to be small and globular. Accounts differ as to the season of gathering the gum. Some persons say they have been accustomed to gather it in the rainy season while others say they collect it in the dry season. A good tree generally yields enough of sap to fill three joints of bambu, 18 to 20 inches long and  $1\frac{1}{2}$  inches in diameter. The trees are said to grow on both high and low land. If the trees are tapped every year it shortens their lives, but when the gum is only drawn every alternate year they do not appear to suffer injury and last for many years. There are several kinds of trees which produce substances resembling gamboge, but they differ essentially from it.

Although Kamboja is the appropriate locality of the plant, there are at present large forests of it in the province of Chantibun in Siam. It does not grow in Kamboja so far north as Matambong. The name is unquestionably derived from the native name of the place of its original discovery, which should be written in accordance with both Kambojan and Siamese usage—Kambuja. Hence the Portuguese "Gutta Kambuja" "Kambuja drops." The Siamese call it Rõng, sounding the *o* as in *cone* but shorter.

\* This account of the Gamboge tree is taken from a memorandum furnished in 1850, by the late Revd J. Taylor Jones, of Bangkok, to Sir James Brooke, K.C.B.

ETHNOLOGY OF THE INDO-PACIFIC ISLANDS.

By J. R. Logan.

CHAP. VI. ENQUIRIES INTO THE ETHNIC HISTORY AND RELATIONS OF  
THE TIBETO-BURMAN AND MON-ANAM FORMATIONS.

Sec. 5 (contd.). The Miscellaneous Glossarial Affinities of the Tibetan Dialects amongst themselves and with Chinese and Scythic.

Sec. 6. The glossarial connection between Ultraindo-Gangetic and Tibetan.

Sec. 7. The forms and distribution of the Chino-Himalaic Numerals in China, Tibet, India and Ultraindia, considered as illustrative of the ancient relations and movements of the tribes of this Province, and of the secular changes in their glossaries.

NOTICE.

A renewed examination of each of the Gangetic and Ultraindian vocabularies by itself and of the relations amongst the different groups, which I have made since sections 5 and 6 were printed, has greatly extended my knowledge of the forms of the common roots and their transfer from dialect to dialect. The results—including corrections and additions to these sections—will find a place in a later section.

After the first part of section 7 was printed, the great historical importance of the numerals induced me to reconsider them as exhaustively as I could, and to construct a full comparative table in accordance with my analysis. The previous remarks on the numerals both in this Section, (pp. 116 to 125) and in Secs. 6 (pp. 16 to 20) and 4, are now to be read subject to the corrections which will be found in the latter part of this Section (p. 126 to the end.) The chief of these is the transfer of the liquid in 4 and in some names for 5 and 8, from the dual to the unit series, and the establishment of the trinal character of the Chinese system up to 7.

J. R. L.

*February, 1857.*





## PART II, CHAP. VI, SEC. 5 (Continued).

## COMPARATIVE VOCABULARY OF HORPA:

## a. Bhotian.

1. *Air*. pu rvu, Thochu mo-zvu, Bhotian lung ma.
2. *Ant* s-khro, Thochu tu khra, Manyak ba ra h, Gyarung ko-rok, Bhot. g. tog ma.
3. *Arrow* l-da, B. m dah, da, T. jsh, Takpa m-la.
4. *Boat* g ra, B g tu.
5. *Bone*. rera, T ri-pat. The others are broad, rus, ru, rhu. Lea-gian re, r-i, lu, ro, Drav. eruma &c.
12. *Day* nye le, G nye, Takpa nyen ti, B. nyir mo. nyi mo.
14. *Ear*. nvo, T. nukh, B. r na, Chepang no, Kar' nho.
15. *Earth* k cha, B. sa.
16. *Egg* s gaoga, B. s gonga.
17. *Elephant* lam-o-chhen, G. lang-chhen, Sukpa lhabo-che, B. g-lang ch. (Ch.)
19. *Father*. apa, M. Takpa apa, B. pha.
20. *Fire* u wa'. B. me. Aka u mah (Ch.)
21. *Fish*. hya, B nya, Lhop. ngya.
22. *Flower*. meto, M. Takpa mento, B metag.
23. *Foot* ko, B r-kang pa, Manip a khu, Yuma ka-kang &c (Ch.)
25. *Hair* spu, B. suu, Takpa pu, M. mui, Dhimal mui tu (Ch)
26. *Hand* tha, B. lag-pa, Takpa la, M. la p che' Lhop. la pa, G. ta yak, Naga yak.
27. *Head*. ghu, B mgo, Gyar., Naga ta ko; Takpa gok ti, Manip: k k
28. *Hog* vah, M. wah. Takpa pha, B phag, phak.
29. *Horn*. k tuu-bo. B. ra, T. rak, M ru bu, Takpa ru ba, G. ta ru; Gato ko rong Sunw gu re &c.
32. *Iron*. chu, G sho m, T. ser mo, Sokpa thu mar, B Ichaga, chhya, Yenis. tu p, ti p; Mong. tu m ur, te m-ur, thu m ar, Suabehi chu-m ar, Kura suv, Chin thiat, thi.
33. *Leaf*. ba la', Takpa b la p. B. lo ma.
36. *Monkey* zum d'- B sp. yu Gr ti.
37. *Moon* s lik no, G. tsi le, chi le', T le', M lhe', B. s la va, da-wa. The Burma form appears to preserve an archaic consonantal softened in G, T. and M into the abrupt accent Comp. Chin. ngiat, Samoiede i ret, i. r. da, Chukchi ira luk, Pagai lago, Meri leka.
38. *Mother* ama, B., M., T. ama.
39. *Mountain* ri'-rap, B, T ri (Ch)
40. *Mouth* ya, B, T. kha. G ti khe, M. ye-da. Ch. (Ch.)
42. *Name* s men, B, G, M ming; Takp. myeng.
44. *Oil* mar-nak, B h-bru mar, T. kya mar.
45. *Salt* chha', B chha.
51. *Snake* phri, G hha bri, T bri gi, B s broi.
52. *Star* s gre, B. s kai ma, M. kra', Burm. kre.
54. *Sun* gna, B nyi-ma
55. *Tiger* s tak, B s tag, tak.
56. *Thoth*. syo, R so.
60. *Yam*. zo, B. du va, tho-ma,

## d. Chinese.

4. *Bird* gyo, C. *chio*.  
 5. *Blood*, *eye*, *sch*, C. *eye*. (B., T., and M. have the broad form *thak*, *sah* &c.)  
 10. *Cow* ngau-m' h, C. ngui, also Lau, Mon.; G. nye nyi, Burm. ngi.  
 18. *Eye* mo, Ch mok, Mon mot.  
 [17, 20, 23, 25, 39 and 40 are Bhoti-Chinese, making the entire number of Chinese words 10.]

## e. Non-Bhotian.

- (9, 11, 13 and 34 are Bhotian in root).  
 9. *Cat*. chu la' M. *ma cheu*. The la' is found in T. lo chi, B. byi-la, N. Tangkal la me. The chu, cheu appears to be a broad form of the Thochu chi, Bhot. si of si mi. The Maring tung, Khoibu tong kan, is the same root. Probably also it is found in the Manipurian *ta khu, khubui, a khu, bi, sa khwu, tiger*. The byi, me, mi, bi, bui in the above words is a generic term for quadruped.  
 11. *Crow*, *kale*, M. *kali*, Sokpa *khere*, Mishmi *tsa-kla*, Champh. *khala*, Garo *koura*. Serpa has *ka lak* (Bhot *ab lak*, Gyar. *ta b-rok*) Sansk. *kara-ta*. ? root *kara*, *kala* &c. *black*.  
 13. *Dog*. *kata*, Koriak *gottan*, Hind. *kutta*, Austr. *kota* (see *Manyak*)  
 24. *Goat* *chhe*, T. M. *tsah*, G. *ku so*, Chepang *mi cha*, Dhim. *ee-cha*, Aka *sha-bam* &c  
 30. *Horse*. *rhi*, *ryi*. Sokpa *ma ri*. T. *ro'*, Gr. *bo ro'*, M. *bo ro'*, *bro'* (Ugr. *lo*, *lu*, *log*).  
 31. *House*. *hyo*, Karen *hi*, Mon *he*, *hien*.  
 34. *Light* *s pho*, Mon Anam *sa wang* &c, Tak. *wot*, M. *wu'*, T. *uik*. (root *Scythic*).  
 35. *Man* *vzih*, Deor. Ch. *mo si*, Kyo *ma shi*. N. Tangk. *pa sa*, Jili *sa sang*. Naga *me sung*, Sulu *sa sug*, Fin *shiesi*, Yukahiri *kun shi*, Turk. *ki shi*, Lesgian *chi*. Abasian *ka tza*.  
 41. *Mosquito*. *vava*, Karen *patso*, Kambojan *mus*, Sansk. *mashaks* (a common root for *fly* &c.)  
 43. *Night*. *s pha*, Manipuri Dialects *maya, mea*, Samoiede *po*.  
 46. *River*. *hra'*, T. *cha bra'*, M. *dya'*, Tablung Naga *siang*, Mikir *lang pi*, Champhung *urai* (see *Water*).  
 47. *Road*. *che'*, Angami Naga *chah*.  
 49. *Skin* *gla*, M. *gra'*, (? *g la, g ra* see Thochu), Mozome-Angami *bi khar*, Sindh., Hind. *khal*, Ostiak *kur parga*, Leag *kuli*. Malay &c. *kulit*.  
 40. *Sky*. *ko*.  
 53. *Stone*. *r game*. The gutt. root is common, but with *l* as the final. Fin has *kiw*.  
 57. *Tree*. *nah*, Mon *ka non*, Aino *nyh*, Pashtu *ons*.  
 58. *Village*. *rhava*.  
 59. *Water*. *hra'*, Chepang *lang*, Nankowry *rak*, Newar *Yenis*. *la*, dok, ur, ul, Turk. *yratech, ir-mak*.

## COMPARATIVE VOCABULARY OF THOCHU.

## a. Bhe'tian.

1. *dir*. *mo syu*, H. *pu ryu*, B. *lung ma*; Manipuri *ma-su* &c.  
 2. *Ant*.

## 3. Arrow.

5. *Blood*. sa', M. sha', B. 'hak, (Tungva shok *sho*, sug *al*, sho-ma), Singfu sai, Bousa z', zis, Lumbu lak shok-pa (Comp. Water dok Yes. dak. tak &c. Kambujan group).

7. *Bone* r-pa t. B. iun-pa, Hor. rera. The slender form is not found in other I.—U. vocabularies, save Lepcha a-b<sup>2</sup>t, but it is Samoiedely, Ugrianly, Caucasian h ka, and it also occurs in Asonesia, ri Tarawa, h-d Erab, ri uk Solor. The double postf resembles that of the Galla-lafa ti. The double Horpa re-ra resemble the Caucasian lu-l, and Komreng lo-lor, the original of the last being probably the T.—U. lung, Ahor.

9. *Cat*. lo-chi (see Horpa).

12. *Crow*. nyag-wo, Bh. sp. ab-lak, Champhung chag-hak, Raxhoing tchag-in, Mishumtsak-la, Siugphu takha, Garo dakha, Bodo doukha, tauka.

13. *Day* khwa', Bh. khyi. The slender form is the most common in the south. The u or w is preserved in the Burman khwe; Singphu kwi. The 'auc. gwai resembles the 'thochu form.

15. *Earth*. zi-p, Bh. sa, G. se'; Jap zi, tsi, Ch. ti &c, Sam. tochia, ja, Turk sir.

20. *Fire*. me', Bh. ma, me.

25. *Hair*. grong, Bh. kra

26. *Hog*. pi, Bh. phag, Chepang piak.

27. *Horn*. rak, Bh. ra, Chuanglo wa-rong, Uraon ma-rag, Ultr. rang &c.

31. *House*. ki', Bh. khyim, Sunw. khi, Kar. hi.

34. *Light*. uik, Bh. hwe.

42. *Name*. r-ma', Bh. ming, Naga-Manip. ming, mang, man.

43. *Night*. a-sha, Bh. m-tshan-mo.

47. *Road* g-ri', Gyar. t-ri, Bh. lum, M. ra'.

48. *Salt*. che', G. chhe, M. che', Bh. tsha, chha, Horp. chha', Tak-pa tsa.

49. *Skin*. ra-pi, Bh. pag-pa. (The ra may be the Horpa g-la, M. g-ra'), Singphu, Karen phi, Murmi di-bhi, Mozome Angami bi-khar, Bodo bi-gur, Garo bi-gil, Yuma moe-pik, Ch. phi.

51. *Snake*. bri-gi, H., G. also slender. Bh. s-biul.

56. *Tooth* swe', G. ti-swe, Bh. so. Burm., Murmi swa, Ch. ch'hui khi, Ugr sho-pan.

57. *Tree*. gwo-zosi, Gr. shi, M. sa-poh, Bh. I-jon-shing, shin-dong, Ch. shi.

59. *Water*. chah. Bh. chhu.

## b. Chinese.

18. *Eye*. kan, Ch. gan, Drav. kan.

22. *Flower*. lam-pa', Ch. ta, hua, Kar. kha.

35. *Man*. na', Anam ngoe, Ch. lang, male, ang, nan, husband (See 10, 13, 15, 44, 55')

## c. Non-Bhotian.

4. *Bird*. mar-wo, Drav. par-va, Angami Naga para, Samoiede mari-nane, Osetic mar-g, Pashtu mir-ge, Hind. mur-gh.

6. *Boat*. phya, ? p-la Tibeto-Ultr. Car Nicobar la-c sp.

10. *Cow* gwa', Pashtu ghwa, Lau ngua, Mon nus, Lhop. ngo, Chin. ngui, go &c.

12. *Day*. styak-lo, Lepcha sak-ni, (*sun*, sa-chak, Limbu, *sky*, tam-sak-pa,)
14. *Ear*. nukh, Karen naku, N. Tangh nakor, Mishmi nakru, Limbu neko, Ch Tibeto-Ult. na [Fin, *face*, nak, nyako]
16. *Egg*. kiwost (? ki-wost "egg-of-bird", bird Singh. wu, Naga vo, egg Newar khyen, Ugrian ai Siam khoi
19. *Father* ai Ugrian ai
21. *Fish* izha', Yenis. yisya, isse, Aino zis-t, Ugr zen, Mong sa-ga-sun; Nias, Paser isa', Philip isda, sida, sira.
22. *Flow r.* lam-ja', Ch. ta, hua, Kar. pha, Garo, Yuma par &c.
23. *Foot*, jako, Turk ajuk, Garo *foot* jak, Kasia ka-jat, Simang chut.
24. *Goat*. tsali, M. tsali (see Horp.)
- 25a. *Hair*. hom-pa. Ugr. yop, Samoiede hopt, Turk. mui, Ultr. som, Newar song, Lepcha achom.
- 25b. *Hair*. kachu, Sok. kechi-ge, Koriak ketschu-gui, Sanskrit kesha; Naga kocho, Kar. kbozu.
26. *Hand*. jipa', Magar hut piak, Turkish *finger* shar-bag, Manip. D. pang. pan, ban.
27. *Head*. kapat; Comp *hair* Sam. hopt, Ugr. upat, opta &c, *head* Indo-Eur. Kopf, hold, caput, kapala &c.
30. *Horse*. ro', G, M, bo-ro', H. rhi (Ugr lo, see Horpa)
32. *Iran*. sormo, Garo shur, Bod shor, chur. Dhim chir; Korea suy, Tangus solo, zhila &c., Sam. soumay a, suaheli chumar (see Horpa.)
33. *Leaf*. thrompi, ? Tib. loma, Ugr. lop, lopta &c.
36. *Monkey*, wai-si, Sokpa me-chu, Singpho we (si is *man* in Horpa v-zih, and ti is *monkey* in Gyar.) Comp. Naga si-mai, mai-nak, Abor, si-eh &c.
37. *Moon*. chha', Sokpa sara, Yenis. chaip, Manip. kachang, Milch ga-tchang, Garo ja ("star" Chin. ch'he, Karen sha &c.)
38. *Mother*. ou, Osm. Turk. aua, Ugr. awai, Sam. eo, Manip. D. noa, ouu &c.
39. *Mountain*, spya', (? s-pya), Sokp. tava, Turk. tapa, tuba, uba, oba, tope. Manip. laphung, bom.
40. *Mouth*. dzukh, Yenis. b-yuk-kon, Sam. hek, Cauc. laku, Kamsch. shak-sha, tsch-na, Koriak shek-shen, Ugr. shus, &c, Fin su, sun &c, 'hin. sui &c
41. *Mosquito*, beup. (The labial root, single or reduplicated, is *mosquito fly*. bee &c in many languages.)
44. *Oil*. chi-g-yu, Ch yu.
45. *Plaintain*, sarmi.
46. *River*, chu-bra', H. bra, Kiranti, Sam. tacha-ga, ja-cha, chawa; Tang. amar; bera &c; Sambawa brang.
50. *Sky*. mahto, M. ma', G tu-mon, teu-meun'
52. *Star*, ghada, Mishmi kadang (? Bhot. j.c. kar.)
53. *Stone*, ghol-opi; Sokpa chhilo, Takpa gor, Many. wobi
54. *Sun*. mun; *Sky* G. mon. Gurung mun, Singpho &c mu, Miri do-mur; Fin poi-wa, pew, Sad fi
55. *Tiger*, kho, Ch hu, Gyami khu, G. kong, Ultr. kya, &c.
58. *Village*, wekha, G. wokhyu.
60. *Yam*, jyuh.

## COMPARATIVE VOCABULARY OF GYARUNG.

a. *Bhotian.*

2. *Ant*, Bhot. *grogma*, Gyar. *korok*; Takpa *rok-po*.  
 4. *Bird*, B. *byu*, G. *pye-pye*, Takpa *pya*.  
 6. *Boat*, B. *gru*, G. *bru*.  
 7. *Bone*, B. *ruspa*, G. *aya-rhu*, (Manip *sa-ru*).  
 11. *Crow*, B. *ablak*, G. *tabrok*.  
 12. *Dry*, B. *nyumo. nyimo*, G. *nye*, *pish-ne* [*pish Chin*].  
 13. *Dog*, B. *khyi*, G. *khi* [*Ch. khiau*].  
 14. *Ear*, *rna*, *na*, G. *tirne* (Angami Nag. *anye*) [*Ch. ngi, li*].  
 15. *Earth*, *sa*, *Gr. se'*.  
 17. *Elephant*, B. *zlang-chen*, G. *lang-chen* [*Ch. chhlang*].  
 18. *Eye*, B. *mig, mik*, [*Chinese mok*], G. *tui-myek, tum-myek*  
 [the G. form is also Burm.]  
 19. *Father*, B. *pha, pala*, G. *tape* Burm. *phae* [*Ch. pe, be*].  
 20. *Fire*, B. *ma, me*, G. *t'mi* [*Chin. we, Aino abe, Fin. bi, com*].  
 21. *Fish*, B. *nya, nga*, G. *chu-nyo*.  
 26. *Hand*, B. *lagpa*, G. *tayak*, Naga *dak, yak*.  
 27. *Head*, *mgo, go*, G. *tako*.  
 29. *Horn*, B. *ra*, G. *taru*.  
 31. *House*, B. *khyim*, G. *chhem*.  
 35. *Man*, B. *mi*, G. *tirmi* [*Fin. mis, Cauc. mi, me, ma, Galla mi*].  
 36. *Monkey*, B. *sprebu*, G. *she-pri*.  
 37. *Moon*, B. *zlava, dawa*, G. *tsile, chileh*, M. *lneh*.  
 38. *Mother*, B. *ama*, G. *tomo* [*Ugro-Kuril. &c.*].  
 40. *Mouth*, B. *kha*, G. *tikhe* [*Ch. khau, Yenis ko, Semit kho &c.*].  
 42. *Name*, *ming*, G. *tirming*.  
 47. *Road*, B. *lam, lani*, G. *tri*, Thochu *grib*, (Karen *kle*, Khari Naga *ndi*).  
 48. *Salt*, B. *tsha, chha*, G. *chhe*. [*Sam. si, sak, Ugr. sow, sal*].  
 51. *Snake*, B. *sbrul, deu*, (M. *bru*, Takpa *mrui*), G. *khabri*  
 H. *phri, T. brigi*.  
 53. *Stone*, B. *rdo, do*, G. *rugu*, (Ultraïnd. *lung, long &c.*).  
 54. *Sun*, B. *nyima*, G. *kini*.  
 56. *Tooth*, B. *so*, G. *tiswe* (Burm).  
 57. *Tree*, B. *ljon-shing*, G. *shi*, (*Chinese shi, chang &c. Kamch.*)  
 59. *Water*, B. *chhu*, G. *tichi*, Takpa *shhi*, [*Chin. chui*].  
 60. *Yam*, B. *thoma*, G. *seten*.

b. *Chinese.*

3, 5, 10, 13, 15, 17, 18, 20, 26, 47, 52, 55.

c. *Non-Bhotian.*

1. *Air, tali*; Burman gr. *tali, kali, khli, le*, Turk *tyel*, Ugr. *il, ill, ilma &c.* [*"Wind" Turk. il, dil, yil, sel, Ugr. tal, tul, zil, tuuli &c.*].  
 3. *Arrow, kipi*; Garo *phi*.  
 5. *Blood, tashi*, Gyami *syé*, Nag. New. *si*; Chin. *chiue*. [*Tib thak*].  
 9. *Cat, tarhu* (? a misprint).  
 10. *Cow, nye-nye'*, Gyami *neu, nyeu*, Ch. *ngni*, [*Turk. ona, ina*].  
 16. *Egg, kitan*, Gyami *chi-tun*, Hin. *tan*, Anam, N-Ultr. *ting*.  
 22. *Flower, tau-den*; Kas. *sin-tin*.  
 23. *Foot, tami*, Takpa *lemi*, Changlo *bi*, Naga *uphi*, Manip. *chepi*,

phai, wang, Milch, bang, Nipal Dial. pali, bele &c., Aconex, val, wai &c., Malag. fe, pe, Indo-Eur. pad, pes, fool &c., Ugrian pilga, Sam. tohol, toho.

24. *Goat*, kaso (see Manyak).
25. *Hair*, tarni, Khyeng inang, Ason oli, niri &c.
26. *Hog*, ki, Abor ik, Naga ak, Gyami tiko, Ch. ti, chi.
33. *Leaf*, tai mek.
39. *Mountain*, tavet, Mongal dybe, Turk. taw &c (see Manyak).
43. *Night*, todi, Angami Naga ti zi, asang dzi, Turk. tin Moang. si, suni &c.
46. *River*, tichi, Takpa chhi (see *Water*).
49. *Skin*, idiri, Dhimal dole, Turkish diri, dari, tire &c., Ugr. tonl &c.
50. *Sky*, tumos, teu meun, T. mahlo, M. mah, Burm. grop mo, mu, mi &c.
52. *Star*, tsini, Naga le tsi, pe-ti &c. Chinese sim, Yuma gr. kasi, s. shi &c. Turkish syltis, ildis &c. Ugr. sili &c.
55. *Tiger*, kong, T. khoh, Gyami khu, Nag. takhu, khu, Chin. hu, ho.
58. *Village*, wo khyu, tu khyu.

#### COMPARATIVE VOCABULARY OF MANYAK.

##### a. Bhotian.

The Manyak forms, it will be remarked, generally resemble the more slender of the Ultraindian and not the Bhotian.

2. *Ant*, B. *grogma* [G. korok] M. *barah*, (Abor marang, Magar mahr, Aka tarak, Manip. group langza, chaling, miling &c. Khumi palong, Silong hedam).

3. *Arrow*, B. *mahah*, da, M. *ma* (Burm., Magar mya, from *mra* Burm., Kiranti me).

4. *Bird*, B. *chya*, M. *ha* (Nag. ou-ha, au-ha &c., Mrung ho, hau).

5. *Blood*, B. *thok*, M. *shah* (Thochu sah, Horpa sye, seh, Gyami sye, Gyarung tashi).

6. *Boat*, *gru*, M. *gu* (Gyarung bru, Ultr. ruc, rung &c.)

7. *Bone*, B. *s*, ruko, M. rukhu.

10. *Cow*, B. *ba*; M. *wo-mi* (Anam bo, Siam woa. In Manipuri, Yuna &c. *woi* is used generally with names of quadrupeds, as *mi* is with those of the cow and buffalo in Manyak. The Anam and Lau names of the cow appear to have been derived from the Tibeto-Ugrian *ba*, *mus*—whence *bos*—through the Manyak form).

14. *Ear*, E. *ruawa*, na, M. *napi*, (Naga, Burm. &c.)

19. *Father*, B. *pha*, M. *apa* com.

20. *Fire*, B. *ma*, me, M. *saine'* [Nag. mi &c.]

22. *Flower*, B. *metog*, mentok, M., Takpa mento.

26. *Hand*, B. *lag-pa*, lango, M. *lap-cheh*, Takpa la.

28. *Hog*, B. *phag*, phak, Horpa vah, M. wah, (Angami Nag. *the-vo*).

29. *Horn*, B. *ra*, rajo, Horpa *krumba*, M. *rubu*, Takpa *rubu*.

31. *House*, B. *nanng*, M. *nyeh*, (Deor. Ch. *nyá*, Bodo *noo*, Naga *nok*.)

32. *Iron*, B. *chhya*, M. *shi*.

33. *Leaf*, B. *loma*, Horpa *balah*, Dhimal *lhava*, Takpa *blap*, M. *nipcheh*, Naga *nyap*, *ponye*.

34. *Light*, B. hod, hwe, eu; Thocho uik, M. wuh, Takpa wot.  
 37. *Moon*, B. zlava, M. l'eh (Naga le).  
 38. *Mother*, B. M. ama. (com.)  
 42. *Name*, B. M. ming.  
 47. *Road*, B. lam, Jani, M. rah.  
 48. *Salt*, B. tsha, chha, Thocho, Gyar. Many. cheh,  
 51. *Snake*, B. sbrul, M. bru.  
 52. *Star*, B. skarma, karma, M. krah, Horpa agre.  
 54. *Sun*, B. M. nyi-ma.

b. *Chinese.*

- 4, 10, 20, 21, 47, 55.

c. *Non-Bhotian.*

1. *Air*, merdah, Naga ra, rang &c. Dophla dori, Burm. li, le, la &c. Drav. la. The broad form of M. is Naga, Drav. and Aino. The slender form of Gyarung and the Burmese group is Turkish, Yukahiri &c. The Tibetan form of the common root is distinct, *rlungma*, *lhakpa*, the latter being connected with the Naga-Manyak form.

8. *Buffaloe*, ding-mi, wo-mi, "cow"; Kar. pi "cow", Dhim. pia, Newar &c. me "buffaloe". Ding is peculiar, unless it be a misprint for bing.

9. *Cat*, macheu; Dophla ache, Naga machi, Bodo mouji, Mong. michoi, Korea koi, Ugr. mishok &c.

11. *Crow*, kali; Horpa kalo, Sokpa khere; Champ. khala, Mishmita-kla, Garo koura (? Asam, Beng.) The term is Scythic, Indo-Eur., Semitico-Afr., and Asonian.

12. *Day*, nashelah; Bodo shyan, Garo, Naga, Yuma san, Tiberk. zhangnia ["Sun" in other dialects]

13. *Dog*, kshah, Horpa katah, Nago tasu, az &c., Nipal dialects *ashu*, *kochu* &c. [Yenisei. il-tscha, Kamch ko-she, Root N. E. Asian, Scythic, Cauc., Indo-Eur., Semitico-Afr., Ason.]

15. *Earth*, mali, mi; Naga ali, Manip. malai &c., Kyo ni, Burm. mre, Mish. tari (Turk. yir, er, Korea chli.)

19. *Egg*, racha (? cha "bird", Tib. chya), Korea ar, al.

18. *Eye*, inni, Mru. min (? from Tib. mik, like the Dhim mi, or from the Mong. nidu by contraction, Kamch nanin, Jap. mey, mamige = Tib. Korea nun, Mong. nudun, nidu &c.)

21. *Fish*, yu, Gyami yue, Chin. hu.

23. *Foot*, ho-cheh (see "hand"), Garo. chap-lap.

24. *Goat*, tsah, T. tsah, H. chhe, *kuso*, Abor sa-ben, Dhim. eecha, Anam, Kamboj. sha-bain, Kashm. shawul, Burm. sheik; si.

25. *Hair*, mui, Dhim. mui tu, Horpa spu, Takpa hu, Turkish mui.

27. *Head*, wuli, Dhim. puring, Khari Naga telim, Manip. lu, Ahoua ru, Yukahiri ulu, monoli &c. Ugr. yor, yir &c.

30. *Horse*, boroh, broh, G. boroh, T. roh, H. rhi, ryi, Mong. mori &c. Tung. moron &c., Korea mol.

35. *Man*, chhoh, Changlo songo, Naga saun-yak, mesung; Ugr. chu, choi, Aino chogu.

36. *Monkey*, miyahah, ? Dhim. nhoya.

39. *Mountain*, mbi, Khari Naga apih (T. spya', Sokpa tava, G. tavei, Mong. dybe, Turk. taw, tau, uba, Yuk. h. pea, Sam. bija.

40. *Mouth*, yeba, Sokpa ana, Mong. ama, amaa, Tung. aanga, Ugr. um, om, im, wom &c. Naga amu, tabung, tebaun.

41. *Mosquito*, bimo, T beup, ? Angami Nag. viru.  
 43. *Night*, kwakah, Kir. khakwe, Gyami khe-lo.  
 44. *Oil*, ichira, itira. Dhim. chuiti.  
 46. *River*, dyah, Bodo doi (see *Water*).  
 49. *Skin*, grab, Horpa gla, Thochu rapi, Sokpa saru, Mozomi Ang. Nag. dikhar, Bodo bigur.  
 50. *Sky*, mah, Thochu mah-to, Gyar tu-mon, Turk. awa.  
 53. *Stone*, wobi, T. ghol-opi (Takpa gorr; gol &c. is Tatar, Korea, Kamch, Yakahiri and Ugrian in different forms; pi, pe &c. is Samoiede, and Aino).  
 55. *Tiger*, lephe.  
 56. *Tooth*, phwih (? Gyar. tiswe, Thochu sweh), Barm. thwa, Takpa woh, Kami afha. [Tungus. wei-che, Jap. fa, Ugr. pui, pu &c.]  
 57. *Tree*, sapoh, Nag. peh, ran, Hurm. apen &c., [Turk. iwos, Tung. mo, Kamch uc, Sam. po, pu, pe, Ugr. pu, eu, fa &c.]  
 58. *Village*, hu, Takpa yu  
 59. *Water*, dyah, [? G. ti-chi, Takpa shhi, B. chhu Chin. sui, cheu &c., Bodo doi, Yuma tui, Nag. tu, ti, si &c., Sam. tui, Tartar su, zu, dsu, she &c.]  
 60. *Yam*, zgwah.



## SEC. 6.

THE GLOSSARIAL CONNECTION BETWEEN ULTRAINDO-  
GANGETIC AND TIBETAN.1. *General remarks on the Bhotian affinities of the  
Gangetic and Ultraindian languages.*

The Ultraindo-Gangetic vocabularies present two classes of Bhotian affinities, each of which has two branches.

The 1st class consists of words, or forms of words, immediately derived from Bhotian, and at least two branches may be distinguished, viz. vocables derived from the modern Bhotian, and vocables derived from the ancient or written Bhotian. If, as is probable, the strong phonology still prevailed throughout the Bhotian province at the time of the first great irruptions into India, it is not necessary to assign an older date to the vocables of the second branch than the earlier centuries of the Christian era. Indeed they may have continued to be imported to a much more recent period, and may possibly be still received into some of the Himalayan dialects if the old phonology be retained by any of the Kam pas who migrate to this side of the snows at the present day. Whether Western Tibet directly sent vocables to the southward before the age of the Himalayan conquests is a question that cannot yet be answered.

The 2d and most important class of Bhotian affinities are those which exist in the Ultraindo-Gangetic vocabularies not because they were received from Bhotian, but because the Northern linguistic stock of the tribes which use them was closely allied to the Bhotian, both having for basis a common formation. They may be now considered as Sifan.

These archaic Tibeto Ultraindian or Sifan vocables possess two forms, one characteristic of that modification of the formation which it had when it first came in contact with the prior Mon-Anam formation of Ultraindia, and the other peculiar to the Burman branch, which appears to have spread to the southward and westward at a more recent period, after having long remained secluded and comparatively pure in the North Eastern part of Ultraindia or the adjacent Sifan mountains. The older diffused forms are generally full and dissyllabic, and the first syllable is frequently a definitive prefix. The later forms are remarkably curt, and in this respect contrast not only with the older, but with the Bhotian, the latter having prefixed consonants and frequently adding a postfix to monosyllabic roots. I will proceed to consider each of these varieties of the Bhotian affinities more particularly.

The absence in Indian history of any notice of the modern irruption of the Bhotians into the Himalayas and the plain of the Ganges, of which positive but faint historical evidence exists in Chinese books, exhibits its partial and untrustworthy character in a strong light. It has preserved no distinct record of an event of so much importance that it gave to the Himalayas a new people and new dialects, subverted the ancient dynasties of the plain,—Arian, Dravido-Ultraindian or Arianised,—and led to the establishment of a Tibetan dominion, which lasted so many centuries in Bengal as to affect not only the ruder languages near the mountains, but, in a very slight degree, Bengali itself. If a revolution of this kind, that began some centuries later than the commencement of our own and of the prevalent In-

dian eras, has been suppressed, how much caution is needed in making any historical use of the Hindu chronicles. The degree in which the proper Bhotian glossarial forms of the Tibeto-Ultra-Indian formation have been diffused to the southward of the Himalayas sufficiently appears from other Sections. The ancient or written forms are frequently found in Lhopa and Serpa and sometimes in the less Bhotised languages of the Himalayas. The modern forms of Lhassa and Digarchi have been partially spread by Bhotians among the Himalayan languages, but very few examples are found in the Middle and South Gangetic or in the Ultra-Indian languages. The ancient Bhotian forms have been sparingly diffused from Bhutan among the middle Gangetic and the adjacent North Ultra-Indian languages. The prevalent Ultra-Indian forms of the Tibeto-Ultra-Indian roots sometimes agree with the Bhotian but more frequently differ from them, and most of those which agree with it are too widely diffused, and are, in many cases, of too essential a character and too intimately blended with the Ultra-Indian glossarial systems, to have been recent derivations from Tibet or Bhutan. Many have now been found in Sifan vocabularies also, and it is clear that such forms were carried southward by the oldest migrations from Tibet, which must have long preceded the Bhotian irruptions of our era. Every great glossarial formation exhibits a proportion of roots which preserve an identity in form in separate provinces and after an extent of diffusion which it must have taken many thousands of years to effect. The Asonesian languages, in their archaic affinities with African, N. Asiatic, N. E. Asiatic and other remote languages, afford striking illustrations of this.

The glossaries of the Ultra-Indian and the connected Indian languages are exceedingly mixed, a necessary result of the single intrusive Ultra-Indian race having partially blended at least three distinct linguistic formations, the archaic Dravido-Australian with its modern N. E. Dravirian branch, and the imported Mon-Anam, and Tibeto-Burman. Every attempt at an exact separation of the roots belonging to these several formations must prove to a certain extent a failure, because all had archaic affinities. Thus the Dravirian had Tibetan and Chinese affinities, and the Mon-Anam languages must have had archaic connections with the adjacent languages of the Tibetan family before either of these branches of the Chino-Tibetan or Himalaic stem was carried over the mountains into Ultra-India and India. But it is possible to make a rough approximation to such a separation, owing to the circumstance of the Tibetan vocabularies still extant in Tibet and the Dravirian vocabularies of Southern India having preserved certain portions of the ancient glossaries of two of the formations comparatively free from Ultra-Indian intermixture. In the case of Tibet it is not probable that its archaic vocabularies have been affected by the non-Sanskrit languages on this side of the Himalayas, and although Southern India is much more exposed, the general effect of all the ethnic evidence is against the Ultra-Indian tribes and languages having influenced the peninsula beyond the Vindyas to any notable extent. Having already partially traced the Dravirian vocables in Ultra-India, the first step towards ascertaining the probable extent and diffusion of the Mon-Anam glossarial remnants will be to separate from the Gangeto-Ultra-Indian vocabularies those words which clearly or probably belong to the Tibeto-Burman formation.

The Bhotian affinities of the various vocabularies of the Burman fami-

ly and of Ultraiudia generally, are, with a very few exceptions, archaic. Taken with the large amount of disagreement that remains amongst these vocabularies, after excluding the Ultraiudian words of probable Dravirian, Chinese, and Asonesian origin, they prove that the Tibeto-Ultraiudian formation embraced several languages possessed of vocabularies that differed considerably. This indeed might have been anticipated. At the remote era when Tibeto-Chinese or Scythoid tribes began to descend into Ultraiudia, it is not at all probable that any civilisation prevailed immediately to the north of the Himalayas sufficiently advanced to have established one nation and one language over a region so cold, arid and mountainous. The western progress of the Chinese may in time bring about such an event, but it may be considered as certain that it has never hitherto existed. At present there are several dialects in Tibet itself, and, according to Chinese authorities, several also in the adjacent provinces now embraced in western China. Where there are now five distinct vocabularies there may have been more than double that number when the tribes of this region first began their movement into Ultraiudia. In estimating the amount of the archaic glossarial affinity between the Ultraiudian and the Tibetan languages, we must allow something for the words that may have been conveyed by Bhotians into Ultraiudia since they became so civilised as to carry on a traffic with the upper tribes of the Irawadi, such as the Mishmi.

*2. The General Connection between the Gangeto-Ultraiudian and the Sifan Languages as Dialects of the same variety of Tibetan.*

With our present imperfect information respecting the East Tibetan and Gangeto-Ultraiudian languages, a detailed grammatical comparison is impossible. In Secs. 1, 2, 3, 4, 5 and 6 of chap. IV. I have shown that the North Ultraiudian and the Gangetic languages are intimately connected in structure, so far as their structure is known, as well as in pronouns, numerals and other particles; and that they all belong to the Tibeto Burman family, although a variable but slight archaic Indian or Dravirian ingredient is found in most of them, and some have been influenced by the Mon-Anam formation: The presence of a large Bhotian element was indicated, but many common traits were found to connect the Ultraiudian with the Gangetic languages which could not be referred to Bhotian, and which pointed at a derivation of the primary Ultraiudio-Gangetic variety of Tibetan not from Bhotian but from some archaic eastern branch of the Tibetan formation.

Referring to chap. IV. for an examination of the structure of the Gangeto Ultraiudian dialects, it is only necessary to add here that the Sifan languages that have since been brought to light by Mr. Hodgson prove to be representatives of that Eastern branch of Tibetan from which the Ultraiudio-Gangetic dialects were mainly derived. At present very little is known of their grammars, and it would be premature to conclude that any of these Sifan languages was the immediate parent of all the allied Gangeto-Ultraiudian. It is clear that the latter are primarily and principally dialects of the Sifan and not of the Bhotian branch of Tibetan, but there must have been a great lapse of time since the Sifan tribes first began to cross the mountains; dialects may have existed then in Eastern Tibet which are lost now; and the surviving dialects have probably been modified by internal change, by movements amongst the ne-

tive hordes and by the influence of the surrounding Bhotians, Tartars and Chinese. For the present we must be satisfied with the conclusion that the Sifan and the Ultraindo-Gangetic dialects are all sub-varieties of one East Tibetan dialect, but that many of the Ultraindo-Gangetic have been more or less modified by the influence of Bhotian since they first spread into the basins of the Irawadi, the Brahmaputra, the Ganges and the upper Sutlej. Some light will be thrown on the successive phases and migrations of the southern dialects by our glossarial comparisons.

The little that is known of the structure of the Sifan dialects has been given in the preceding Sections. All the traits that distinguish them from Bhotian are found in the Ultraindo-Gangetic languages. The principal is the large use of vocalised pre-fixes. The identity in these pre-fixes, in the non-Bhotian pronouns and in the particles generally, belongs to the glossarial comparison. The somewhat more Scythic character of the phonology also connects the Sifan, or at least the Gyarung, with the more harmonic of the southern languages, as the Bodo and Dhimal. The postfixual agglutination of the pronouns is a Scythic trait, which must now be considered as of Sifan, and not of Dravirian, origin, in the Dhimal and Naga dialects in which it has been found. The existence of a dual or inclusive plural of the 1st pron. in Manyak and Thochu connects the Sifan idiom with the Scythic on the one side and the Dravirio-Australian on the other. Mr. Hodgson has found it in the Himalayan dialects of Kuswar, Hayu and Kiranti (Journ. As. Soc. Beng. 1853 p. 62), so that it may prove to have been carried by the Sifan tribes to the southward. The Ho, Santhal and Oraon forms to which Mr. Hodgson also refers, are Dravirian, and not Manyak, Thochu or Scythic.

In referring to chap. IV. it will be born in mind that the Sifan vocabularies have now greatly increased the ascertained Tibetan element in Gangeto-Ultraindian, and, as a consequence, diminished what I had considered the Dravirian. The phonology and pronouns may now be held as mainly Sifan, although some Dravirian ingredients are still recognizable (see chap. V. sec. 11).

The general ethnological inferences may be briefly adverted to in this place.

The first conclusion to be drawn from the ascertained facts is that during an era subsequent to that in which the Mon-Anam formation became predominant in Ultraindia, Tibetans crossed the Himalayas in large numbers and acquired an ethnic position and influence in Northern Ultraindia and the Gangetic basin. The Tibetan language in its integrity was transported to this side of the snows, and, through the dispersion of the Tibetan tribes, gave rise to new dialects, and deeply and variously affected the prior Gangeto-Ultraindian languages. In many of the existing cis-Himalayan dialects we find Tibetan pronouns, particles and ideologic usages, while the miscellaneous Tibetan vocabularies form an ingredient, generally very considerable, in the glossaries of all the Ultraindo-Gangetic tongues. Although no single mixed vocabulary appears to be more than one half Tibetan, it is probable that the greater part of the Tibetan glossary was at one time current in the southern dialects, or was inter-fused amongst the different native languages which came under their influence.

An influence so great, and embracing so many languages from the

Milchanang to the Singpho and Lau, could not have been exerted by a Tibetan tribe which was confined to the mountains, like the present western Bhotians and eastern Lhupas. Tibetans or Tibetanised Himalayans must have descended into Ultraindia or India and acquired a political and social predominance over a considerable area.

The second inference is that the diffusion of Tibetan elements on this side of the Himalayas has not been caused by a single movement of a Tibetan tribe confined to one era. These Bhotian irruptions into the sub-Himalayas and India which may be regarded as historical have produced a comparatively small influence. Although it has been continued until the present time, or for about twelve centuries at least, owing to the permanent advance of the Bhotian ethnic frontier into the sub-Himalayas, it has failed to assimilate the conterminous languages of that tract. From the Tiharkhad to the Abor a nearly uninterrupted band of languages is preserved, which retain non-Bhotian forms of pronouns and particles, and two thirds of the vocables of which appear to be non-Bhotian. Even the most eastern of these languages, as the Daphla and Abor, which are spoken by highly Bhotoid tribes, have a very considerable basis of non-Bhotian traits in phonology, glossary and ideology. In the Gangetic plain the influence of Bhotian has been still less. It is obvious, from these facts, that the pure Bhotian tribes and languages of the sub-Himalayas have always been separated from those of the plain by a barrier of only partially Bhotised languages. In Bhutan the influence of the historical Bhotian advance to the southward has been more powerful and extensive than in Sikim and Nipal, but the physical and linguistic character of the Bodo and Dhimal shew that beyond the mountains it was comparatively feeble and superficial. In the basin of the Irawadi and the connected western territory as far as Bengal and the Bay,—the tribes of which are entirely separated from the Bhotians by intervening ones and are less Bhotian in person and customs than some of the Himalayan tribes,—we find that the Naga and Yuma vocabularies are twice as Bhotian as most of the Nipalese. The Mishmi, Jili, Singpho, Naga, Yuma and Garo appear to have a direct glossarial connection with Bhotian—whatever may be the chronological and ethnic relation of the Tibetan movement which induced it—distinct from that which Tibetised the more western languages. But to ascertain this relation satisfactorily it is necessary to advert to the non-Bhotian traits of the Naga, Yuma and of the Gangetic languages, and these will be discussed in a separate Section.

In the following details my principal object will be to shew the extent to which Tibetan enters glossarially into the languages of Ultraindia and India. In the comparative lists in the Appendix, compiled before the publication of Mr. Hodgson's Sifan vocabularies, I had indiscriminately entered all words that have Bhotian affinities. A few are thus included of which the derivation from Tibet may be doubted, Mid-Asian and other remote languages having forms that are nearer the cis-Himalayan, while others are given which now appear to be Sifan and not Bhotian. But making every allowance for these, this Section with the Appendix will afford a general view of the influence which the Sifans and Bhotians have exerted on the vocabularies of Ultraindia and India from the era when they first found their way across the snowy barrier.

3. *Pronouns.*

The Bhotian pronoun of the 1st person, *nga*, *na*, prevails in most of the Himalayan languages and in Ultraiidia, but as it is not common in the Naga dialects, it is improbable that the Ultraiidian *nga* is of immediate Bhotian origin. I should rather have supposed that in some of the eastern Himalayan dialects it was of Ultraiidian and not of Bhotian derivation. The influence of the Gangetic Bhotian of the Palra on the Kurman family was far too slight to have extirpated the ancient Burman pronoun of the 1st person throughout all the Kurman dialects. The Burman pronoun agrees with the Bhotian and Chinese (*ngo*) because all have ultimately derived it from the same mother formation.

The origin of the Ultraindo-Gangetic *nga*, *na* &c has now been set at rest by the Sitan vocabularies.

The Bhotian 2nd pronoun, *khyod*, *khyo*, *khe*, has been carried by the Bhotians into most of the Himalayan languages, but not beyond them. This pronoun is of itself almost decisive as to the relation of the Ultraiidian to the Bhotian, and of each to the Gangetic languages. The Burman *nang*, *na* is found in several of the Naga languages, in Garo, Bodo, Dhimal, Abor, Miri (*na*, *nan*), Daphla (*no*), and even in Magar (*nang*). one of many proofs of the connection between the pre-Bhotian Himalayans and the Burman family. The Mon and Kambojan pronouns, the former of which have spread into the Malay peninsula, are distinct.

The Bhotian 3rd pronoun, *kho*, *khu*, is found in several of the Himalayan vocabularies, but not in Dhimal, Bodo, Garo, Naga or Burman, the prevalent forms being Sitan and Draviroid. The Singphu *khi* is perhaps Bhotian, but as a similar particle is a common definitive (e. g. Kasia *ka* singular, *ki* plural) this is uncertain.

The Bhotian plural particles *nam*, *chay*, *dag* do not appear to have made much progress in India, unless the Bengali *dig* is a derivative from the last. \* The postfixed definitives *pa*, *mo* &c. are found in several of the Himalayan and Gangetic languages but not in the Ultraiidian. Most of the Himalayan possessives are apparently modifications of the Bhotian, but some may be Dravirian, the latter having a wide range of possessive particles. The extent to which Bhotian forms and particles have been engrafted on the Gangetic languages appears sufficiently from chap. IV., so that it is needless to pursue the subject here.

From the evidence of the pronouns it may be inferred that the Bhotian dialect intruded on a chain of Gangeto-Ultraiidian dialects which possessed the Sitan forms of the Chinese. Save in the vicinity of the southern Bhotian dialects, the Bhotian pronouns have made little progress. Even the highly Bhotian Takpa retains the Sitan-Ultraiidian 2nd pronoun and has not borrowed the Bhotian one from Lhopa. Changlo, like Bodo, Dhimal, Abor and all the proper Ultraiidian dialects, has the Sitan pronoun, and in the sub-Himalayan band the Bhotian appears not to be found to the eastward of Nipal. That the Sitan branch preceded the Bhotian even there and further to the westward, appears from Tibarkhad preserving the Sitan pronoun.

A full comparative list of the Sitan and of the allied Ultraindo-Gangetic pronouns has already been given in chap V. sec. 11. Among

\* Magar ku-rik. (See chap. V, sec. 11).

the correspondences there noted will be found the contracted form *a* of the 1st pron. common to Manyak, Angami Naga and Mikir; *ang*, the Gyarung postfixual form, found as a postfix in Naga and as a separate form in Bodo, Garo and Kiranti; *uge* Takpa and Singto; *ka* Thochu, Dhimial, Lepcha, Lau (*kha*, *kau*, *ku*), Toung lho, &c. Most of the Ultraindo-Gangetic forms of the 2d pron. are Sitan, *nan*, *na*. The Manyak variation of the vowel *oo* is found in Daphla, Abor, Deoria Chutia, Angami, Mozome Angami and Namsangya. The other Sifan particles are also Gangeto-Ultraindian. I add a few examples.

The Gyarung particles occur in Ultraindian languages. *Ma*, *m* &c. is common as a negative and caritive postfix or prefix (Abor, Dophla, Dhimial, Mikir, Garo, Burman &c.). The Khamti *ma-*, *mo-*, and Chinese preposed *m* &c. is the same particle. *Da* denotes the present in Abor as in Gyarung, and a Gyarung-like combination of it with *la*, another form of the same Bhotian definitive, renders it emphatic, *lada*. In another form, *ta*, it is completive, corresponding with the Gyarung *ta*, past. In the Dophla perfect *pana* a combination occurs similar to the Gyarung, *pa* by itself being future in Abor (in Dophla *bo*). Changlo has *-le* present, *-ba* past (Burm. *byi*, Bodo *bui*), *-dang* future (Burm. *tho*, Khamti *ta-*). Bodo has *-dang* present (used as a verb subs.), *bai*, *nai*, imperfect, *dang-man* perfect, *nise*, *gan*, fut. Dhimial has *hi* past, *khi*, *mhi*, *nhi* present. Garo has *-na*, *-enga* present, *en, a-chim* imperf., *-a*, *-aa* perf., *-chim* perf. def., *esa*, *kheng*, fut (Bodo). Naga has *-t* perfect, *la-* prefixed, with *-t* postfixed, as a second perfect (Abor, Gyarung, so in Tibetan *b*-&c. pref. with *-s* postf.), *i* is future. Mikir has *-loh* past (Naga, Kas.), *-ye* future (*i* Naga), *-bo*, *-bang* emphatic futures (Abor, Daphla, so Burm. *mi*), *-si* participial (Gyarung). (Garo has *-na* present (Gyarung *na-*). Kasia has *la-* past (Mikir, Naga, &c.), *n-* future. In Singpho *-ha* is past (Dhim.- *hi*, Bhot.- *s* also *ha-*, *h-ha-dai* perfect, *-a* future (Bhot. *-a*).

Takpa being at present the only known language that appears to be conterminous with the proper Tibetan dialects on the one side and with the Ultraindo-Gangetic on the other, it will be useful to advert to the affinities of its pronouns and particles. I add the numerals to give greater breadth to the comparison.

As Takpa is the language of the Towang raj, it must be conterminous with some of the dialects of the Bor and Abor tribes.\* At present we are only partially acquainted with those of the southern Aka, Daphla and Abor-Miri. The two first appear to be the same and to be closely akin to the last. How far they are spoken to the north, and whether any other dialects exist between them and the Takpa, is not known.

\* Are the Tag *ab* or Tag-*ab*, one of the tribes of Bhutan who inhabit the district of Tok-na, or Tag na, Tagana or Doka, not a section of the Tak-pa who happen to be under the dominion of the Deb Raj? (As. R. s. XV, 146, 140 Pemberton 111). The Pilo of Tag na's territory "lies between Baksha and Cherang. H+ has two Dwar or passes, and the Refu Jadu and two Tumas are under his orders. His territory is eight days journey long and four days from east to west. He pays altogether annually in two instalments about 3000 rupees and rules about 3-16 hs of the country" (As. R. XV, 139).

The pronouns of all these dialects are Sifan-Ultradian. The 1st is *nge, nye*, in Takpa, the vowel being exceptional. The East Mishmi *ke* appears to be a variation of it. Daphla and Abor have *ngo*, the Chinese form,—the Sifan and Bhotian being *nga*. Mishmi has *ha*, the Manyak, Naga and Mikir *a*. The 2d has the Chinese form also found in Horpa (*ni*), but contracted to *i*. Daphla and Abor have *no*—the Manyak form—and it is also possessed slightly modified by the Western Mishmi, *nyo*. The 3d in Takpa is *pe, be*, which is not Sifan but Chinese and eastern Mishmi, *we*. The labial is also Daphla *ma*, and Abor *bu*. The Western Mishmi combines it with the dental *mta*. The Takpa pl. postfix is *-ra*, the Daphla *lu* (a var of the same partic), the Abor *-lu* or *-lu-ke* (comp Horpa *ri-gi*); *a-rang* is another Abor form, and the Mishmi *long* corresponds with it. E. Mishmi has *thal* (comp. Singpho *theng*, Angami *toleti*, Tengsa *khala*) &c. The Takpa poss. is *-ku*, the Daphla and Abor *-g*. The Takpa dative is *sga, la*, the Manyak *we*. Daphla has *-bo*, Abor *-na-pe* or *-ke-pe* following the poss. (*-g-ke-pe*), *bo* and *pe* being the same as the Manyak *we*, and *na* the Takpa *la*, Horpa *da*, Bhotian *na, la, da, ra*. The Takpa ablative "from", is *i*, which may be a contraction of the Manyak *ni*, Chinese *li*, Bhotian *ne, di-ne*. Daphla has *-g-ga-m*, Abor *-g-ke-m*, or *-g-la-ke-m* (*-g* poss., *-lo* locative), in which *ga, ke* are Horpa, *gha*, Thochu, *ge, k*, Changle *gai*, Burman *ga*, Garo *-ni-kho*. The instrumental is in Takpa and Gyarung *gi*, Bhotian *gi-s*, Abor *-ko-ki*, in Daphla *-mo-na* (following the poss. *-g-*), comp. Sunwar *mi*, Limbu *nu*, Lepcha *nan*, Burman *nheng*.

The numerals present some coincidences. The 1 of Abor *a-ko* may be the Manyak *ta-ti* and Thochu *a-ri* (not Takpa *thi*, or Gyarung *ka-thi*), but as *a-* is a prefix and *-ko* a postfix in the other numerals, the root appears to have been lost in 1, although it is preserved in 5 *a keng-ko*, and in the adjacent Changle dialect of Lhopa, *khung*. Daphla retains it in 1 *a ken*. 2, Daphla *a-ni*, Abor *a ni ko*, is Bhotian, Naga, Himalayan; Takpa has *nai* 3, D. *a am*, A. *a um ko*, Takpa *sum*, Gyar. *sam*. 4, D. *a pli*, A. *a pi ko*, (Changle *phi*), T. *pli*. 5, D. *a ngo*, A. *a ngo-ko*, *u-ngo*, *pi li-ngo-ko* (4 repeated), T. *li-a nge* (4 repeated). 6 D. *a-k-p-le* (*a-k* = *a-ken* 1, *p-le* properly 4, but here contracted from the original full form of 5 *p-li-a-nge*), A. *a-keng-ko* (the 1 of D.), Changle *khung* 7 D. *ka-na-g* A. *ki-nit-ko*, *ku-nid-e* (Burm. *khunhit* in 2 *nhaik, nhaoh*—= *ng* of D) T. *nis* (2). 8, D. *plag-nag* (4, 2), A. *pi-ni-ko* (4, 2). 9, D. *knyo*, Lepcha *kyot* (nearer to the Chinese *kiu, kieu, kau* than the common Tibeto-Ultr. *gu, ku* &c., A. *ko-nang-ko* (? Gyar, *kung-gu*). 10, D. *rang* (Karen *lang* 1), A. *uying-ko*. It may be inferred that Takpa has a close special connection with the Daphla and Abor, but that the period of their separation was very ancient. The southern dialects retain some archaic full forms not now found in Takpa or the Sifan languages, and they have non-Takpa traits in common with Bhotian, and with Sifan and Ultradian dialects.

#### 4. Numerals.

1. The Bhotian *gebig* is the original of the Marmi *ghrik*, of which the Gurung *kri* is a contraction. The Bhotian sp. *chik* is found in Serpa. Lhopa has *chi*, and Newar *chhi*. The Limbu *thit* preserves the Chinese final, and the Takpa *thi* is a contraction of a similar form.

The Naga *ka-tang*, (*ka-t* in higher numbers), *ka-tu, a-kh-et* (? *a-khet*)



are Sifan, *ka-ti* Gyarung, *ta-bi* Manyak, (*ra* Horpa, *a-ri* Thochn). The prevalent Sifan and Ultraindian vowel, it will be remarked, is not found in Gyarung, which has the current Chinese and Bhotian *i*. With the Sifan-Naga forms are to be classed the Kami and Kumi *ka*. Khyeng *ka-t* (of *nbat, pa-hat*), Shindu *me-te*, Bongju *ka-kar*, Kuki *ka-ka*, Nicobar *ko-hok*, Burman *ta, ta-ch, ta ik*, Karen *ta-ple*, Tunglu *ta*. The Karen and Burman retain the Manyak form unaltered. The guttural Yuma variation of this is found in Changlo khung, Daphla *a-khen*, Abor *a-ko* (doubtful, *6* has *a-keng ko*), Taying Mishmi *e-khing*. The original Chino-Tibetan final is preserved in the Naga *a-khet* unless it be a variety of the Gyarung *ka-ti* (*khe-t*). To this variety the Kiranti *ek-ai* is also referable, unless it be Arian. The Naga *ka-t* is, in like manner, the original of the Lepcha and Magar *ka-t*, Sunwar *ka*, which appears to be the prefix of *ka-t* and not a derivative from the Yuma radical *ka*.

The slender Burman forms *tit, te'*, may be native varieties of the broad Sifan forms, but it is more probable from the Gyarung *ti, Takpa thi*, that similar varieties of the Chinese *chit, it, che* &c. were at one time current in Sifan also. The Naga *cha*, is an a form retaining the Chinese consonant. The Garo and Deoria Chutia *sha* is a variation of *cha*. Naga has also the (*van-the*), corresponding with the Burman *te'* and Chinese *che'* or *chek*. The Bodo *che* (*man-che*, in which the pref. *man* is the same as the Naga *van*), Dhimal *e* (*e-long*, in 10 *te-long*), is the same variety. It is also found in the Miri *a-te-ro*. The Limbu *thit* is referable to the Burman *tit*, and the Takpa *thi* is a contraction of a similar form. The Singpho *ai-ma*, and Chepang *ya-zho* appear to be Sifan (*a-ri* Thochn, *ra* Horpa).

2. The forms of Bhotian, *gnyis, nyi*, so closely resemble the Gyarung *ka-nes, ki-nis*, that the affinities of the Himalayan varieties are somewhat uncertain. The Serpa and Lhopa *nyi* and Changlo *nyik* are the only undoubted Bhotian forms.

The Sifan broad form (Thochn *nga-ri*, Manyak *na-bi*) is found in Takpa *na-i*, in Kachari Bodo *na-i*, in Burman *nha-ik, nha-ch*, and in Naga *a-na, a-na-i*, the Ultraindian forms with final *t, ch, k* being referable to Sifan varieties which possessed a final consonant like Bhotian and Gyarung.

The common Ultraindian forms have *i, e*. Burman *nhi-t*, Nicobar *ne-t*, Kuki *ni-ka*, Naga *va-nyi, a-nyi, ih, a-ne*, Thunglu *ne*, Kami *ni*, Abor *a-ni, a-ni-ko*, Mikir *hi-ni*, Mishmi *ka-ning, ka-ying* (final *ng* as in *l*), Garo *gi-ning, a-ning*, Bodo *man-ne*, Dhimal *ne-long*. The variation of *i* to *e* is also Horpa, *oge*, and Gyarung, *ka-ne-s*. The final is preserved in the Naga 7, *i-ngi-t, ni-th, ta-ne-t* (Gyarung *ka-ne-s*), *a-na-th*. The Singpho *n-khong* is a variation of the Naga *a-ni-ko*, and the Sibsagar Miri *n-go-ye* is a similar form with a superadded postfix found in higher numbers, *a-pi-e 4, &c.*

The Lepcha and Limbu *nye-t, nye-t-sh* have the Bhotian *y* augment but the vowel is Sifan-Ultraindian. The Murmi *gni*, Sunwar *ni-shi*, Magar *ni* may be Bhotian, but Sifan-Ultraindian has similar forms, and the general affinities of the Nipal dialects are S.-U. more than Bhotian.

3. The Limbu, Kiranti, Takpa and Chepang forms in *u*, with the Murmi in *o* (*sum, syuw, som*) appear to be Bhotian, like the Serpa and Lhopa. The Newar *son*, Gुरुंग and Magar *song*, Taying Mishmi *ka-chong*, Mez. Ang. *su* (Horpa), Burman *sung, song*, Dhimal *sum*, Singpho *ma-sum*, Bongju *tum-kar*, Kuki *tum-ka*, Khyeng *thum, pa-*

thong. Kumi tom, Kami ka-tun, Mru shun, Tungbu thung, Abor-Miri a-um-ko, a-om-ko, ang-um, a-um-a, have also the Bhotian vowel, but as so wide a diffusion in Ultraindia of the Bhotian form of the numeral would be exceptional, and as Horpa has also u (su), it is probable that u, o forms at one time existed in Eastern Tibet also, and were thence transmitted to the Burman branch of the Ultraindo-Gangetic family. It is probable that the i of Thochu and Manyak has been substituted for an archaic u, (Bhotian and Horpa), because the interposed Gyarung has adopted or retained the current Chinese form sam, and the i form has made little progress in Ultraindia. The change is similar to that of brul, snaks. to bri. The Gyarung must have had the proper Chinese form when its glossary was carried to Ultraindia. The Nipal terms in um, om, may be of Ultraindian and not of Bhotian derivation.

The Chinese vowel a is retained in Gyarung ka-sam, and in the Ultraind-Gangetic Mijhu Mishmi ka-cham, Mikir ka-tham, Garo gi-tham, Naga sam, a-zam, van-ram, Kachari Bodo tham, Dophla a-am, Changlo and L-pcha sam and Sunwar sang.

The Thochu and Manyak slender variety k-shi ri, si-bi is only represented to the south by the Sak thin, but the coincidence appears to be accidental as the other Sak numerals have no special agreement with Manyak.

#### 4. The Bhotian bzhi, zhi is Serpa and Lhopa.

All the other Himalayan terms and all or nearly all the Ultraindian have the Sifan form, Gyarung ka-di, p-li, Manyak re-bi, Horpa hla, le. The form pli is remarkable. It is only found in the Gyarung ka pli-si 40, where it appears as a root with the ordinary Gyarung prefix ka-ka-di, 4, is the true Gyarung form, and pli must have been borrowed from a Sifan dialect in which p and not k- was the prefix. The archaic prevalence of such a dialect is supported by the currency of the labial, 1st as the qualitative postfix in Bhotian (po, .bo, mo),—2d, as the numeral postfix in Manyak -bi,—3d, as a prefix in the Bhotian 4, 7, 8 and 10 and in Bhotian verbs,—and by the prefixal position of the qualitative def. in Horpa (ka, ga &c.) and Manyak (de, da &c.), and of the qualitative and numeral def. in Gyarung (ka). The labial is one of the archaic attributive definitives of the Tibetan formation (qualitative, numeral, assertive), and the regular archaic position of such definitives was prefixal. The dialect from which Gyarung borrowed pli, must have been a very influential one, as a similar form has been widely dispersed on the southern side of the mountains. It appears to be now represented by Takpa in which p-li is 4, and in which it is explained as the Bhotian prefix (b.) joined to the Sifan liquid form of the root, di, rhi, re. Takpa pli, Abor a p-ko, Taying Mishmi ka-prei (as in the Gyarung 8), Mijhu Mishmi b ri si 40, Garo bri Bodo bre, Dophla a pli, Mikir phii, Sinpho meli, Naga beli, pi, phai, a-li, Kami mali, Sak pri, Changlo phi, Chepang ploi zho, Lepcha phai, Murmi, bi, Magar buh, Newar pi, Gurung pli. The Nogaung Naga pa-z is an example of a similar form in which the root has the broad form of Thochu zha, Angami N. da, &c

The Manyak variety re is Moz Naga deh (comp. Gyar. di), Burman and Sunwar le. It is also found with the prefix in the Naga phale. Bodo bre 4, Gurung and Murmi pre 8, Kiranti re-ya 8. These forms are examples of the operation of a similar phonetic tendency.

The a form of Thochu, g zha re 4, kh ra re 8, and Horpa, hla, is not

found to the south, save in Ang. Naga da, and a few forms for 8,—Singpho *ma tsat*, Bodo jat, Dophla *pla-g-nag*, Kasta *prah*.

There is no southern dialect in which *p*-is found regularly prefixed to the other numeral roots as well as to 4 and 8. It is probable therefore that it was not carried across the Himalayas by a dialect like Manyak in which it was current as the regular numeral servile, but by one in which it had become restricted to 4, &c., or which had borrowed it from a system in which it was regularly used. Shendu has *me* as its prefix throughout, but as 4 is *me puli*, *puli* must have been received by it as a concrete vocable or root, in like manner as Gyarung received the *pli* of *ka-pli*. So also Bodo has *man*-throughout, and 4 is *man-b-re*. But in Singpho and some of the Naga dialects the use of the labial in 4 corresponds with its use in several of the other numerals,—3 *masum*, 4 *meli* (40 *mi-si*), 5 *manga*, 8 *ma-tsai*. The change of the vowel in 4, is explained by its assimilation to that of the root. In the Kamī *mali*, Naga *phale*, Lepcha *phali*, the primary vowel of the prefix remains.

The west Himalayan (Nipal) forms are evidently of Ultraindian—chiefly Naga—derivation,

5. The Bhotian and Manyak forms are the same, *ngo*, *nga*, and Gyarung is only distinguished from them by the vowel, *o*, which is Chinese. The *a* form is the most common in the Himalayas and it prevails almost exclusively in Ultraindia. In general it is probably of Sifan (Manyak) and not of Bhotian derivation. The Chinese and Gyarung *ngo* is found in Lepcha *pha-ngon* and Sunwar *ngo*. It was probably a North Ultraindian form also before it spread to Nipal. It has now been found in Taying Mishmi *ma ngu*.

The Takpa *lia-nge* repeats the root for 4, as a prefix to that for 5, and the same usage is found in Miri *pi li-ngo-ko*, Bongju *rai-ngo-kar* and Mijhu Mishmi *ka lei* (with the root for 5 elided). These terms appear to explain the Kambojan *p-ra-m*, Anam *la-m*, *na-m*, Nancowry *la m 5*.

6. The Bhotian and Sifan forms are similar. Bhotian has *u*, Gyarung and Horpa *o*. But Manyak has *u* and Takpa *o*. The Bhotian *thu, dhu, tuk*, is probably the original of the Murmi *dya*, Newar *khu*, and Changlo *khu*. See App.

The Bhotian wr. *druk* is similar to the Manyak *tru-bi*. This variety and another with the *k*- prefix appear to have been the originals of the common southern variety. Takpa *kro* (Gyarung *kutok*, Thochu *kha-ra-re*) Singpo *kru*. Garo *krok*, Taying Mishmi *tha-ro*, Mikir *thorok*, Naga *tarok, the-look, arok, irak, soru*, Burmese *khrauk, khyauk, Sak khyouk, Kumi taru, Kami tau, Shendu me-churu, Kuki ruka, Tunglu ther, Chepang kuk-zho, Lepcha tarok, Sunwar ruk*. The *a* form of Thochu *kha-ta-re* is not found in the south. The Burman amplified *kh-rauk* is the original of the Mon *ka-rao, Ka tau, Khyeng sbauk, Anam sau*. The form that has intruded into the Vindyan system *toru, tur* and been received by it as a root to which a native poss. and qual. definitive has been postfixed (*toru-ia, tur ia, toru-i* &c.), resembles the Bhotian *d-ruk*, Takpa *k-ro*, Mikir *thorok, Angami Naga soru, Shindu churu*. The Gond *sa-rong* resembles the Naga *tarok, soru*. The Mijhu Mishmi *ka-tham* is the Gyarung 3, *ka-sam* (i. e. 3 dual).

7. The exceptional Bhotian *b-dun, dun* is only found in Serpa *dyun, Lhopa dun* and Changlo *zum*.

The Gyarung quinary *ku-sh-nes, Horpa z-ne* (2 for 5, 2) are the Tibetan

representatives of the prevalent Ultraindo Gangetic term. The Gyarung prefix occurs in Abor-Miri and Burinan *ku ni* &c. The Tibetan *sh, s* is found in Singpho, Garo, Karen &c. The curt Horpa *zue* resembles the Bodo and Garo *soi*, Bongju *sre*, Kuki *sri*. The Naga and Yuma *tani*, *thanyet*, *kanet*, *anath*, *sarika*, *sari*, Burman *kunaik*, &c. appear to be connected with the Mijhu Mishmi *nun* (*ning in 2*), Abor *ko-nange*, Daphla *ka nag*, Chepang *cha-na-zho*, Sunwar *cha ni*.

8. The Bhotian *brgyud* is not found to the south. The sp. form *gye* is Sifa and Lhopa. The Gangeto-Ultraiidian forms generally are Sifa. (See 4).

The west Himalayan terms are of eastern derivation, Chepang *prap zho*, Dophla *plag-nag*. (Thochu *ktra-re*, 8, *gzha-re* 4, Horpa *hla* 4); Lepcha *kakeu*,—Kam *kava*; Kiranti *reya*, Murmi, Gurung *pra*,—*bre*, 4, Bodo, *pha'e* 4 Naga, (*rebi* 4 Manyak, *leska* 40 Horpa) *pre* 2 Mru.

The Gyarung *or*-yet has an exceptional prefix, but it is found in Ultraiidia as a variation of *t, s*. Mru has it in 8 *ri-yat* and 7 *ra-uhit*. Taying Mishmi has *el-yem*.

9. The Bhotian and Sifa terms are the same. The Lepcha *ka-kyot*, Chepang *taku*, resemble the Takpa *du gu*, Dophla *kayo*, Taying-Mishmi *konyong*, Naga *taku*, Kuki *koka*, Tunghlu *kut*.

10. The Bhotian broad form *ochu, chuh* is found in Gyarung and Tibarked only.

The Bhotian varieties of the Chino-Tibetan numerals have therefore made as little progress as the pronouns. They are hardly found beyond the southern Bhotian dialects,—*Serpa* and *Lhopa*—save in the Bhoio-Sifa forms of *Takpa*. But there are a few examples of a very archaic existence of Bhotian forms in Sifa-Ultraiidian systems or of a special connection between such systems and Bhotian in one of its older stages. The Bhotian labial numeral prefix appears at some remote period to have been used in Sifa and Ultraiidian dialects. In some it is now more regularly used than in Bhotian.

The Ultraindo-Gangetic varieties are either current Sifa, or are connected in such a mode with the Sifa as to show that they must have been derived from systems that once existed in Eastern Tibet, although they are now represented only by remnants that have been adopted into the surviving systems. The most prevalent Ultraiidian systems appear to have been the Naga—Yuma which spread westward along the sub-Himalayas to Nipa.

5. *Miscellaneous vocables.*

The ethnic place and influence of the Tibetan glossaries can only be properly shown by means of general comparative tables of all the known forms of South East Asian roots. These tables must embrace, 1st, the Chinese, 2d, the Scythic, with the allied N. E. Asian, Caucasian, Indo-European, Semito-African and Malagaso-Polynesian forms, 3d, the Dravirian and Draviro-Asonesian, 4th, the Tibeto-Ultraindian and derivative Himalayo-Asonesian, and, 5th, the Mon-Anam and derivative Himalayo-Asonesian. The comparative vocabularies of this kind which I have compiled are not yet complete enough for publication; and, for the present, I must refer the reader to the appended vocabularies, although, from the time that has passed since they were prepared, they are, to a large extent, out of date. I shall here examine some groups of roots with more exactness and fullness. The general result of the comparisons I have hitherto been able to make, may first be briefly stated.

The various forms and applications, of almost any single root, and the manner in which they are now found dispersed amongst the Tibeto-Ultraindian and Mon-Anam vocabularies, justify the following inferences.

1st. The Himalaic glossaries have an archaic radical connection with the Chinese.

2d. They have both an archaic radical and an intimate secondary connection with the Scythic glossaries. Not only the root, but various forms and applications of it, are often common to the two provinces. Of these Scythic forms some have been retained in Tibet, while others are now obsolete there, but current in Gangeto-Ultraindian vocabularies. The Tibeto-Burman and Mon-Anam glossaries possess many of the normal variations to which roots are liable in Scythic from the change of the vowel; from the assumption or discarding of a final consonant, mutable from a dental, sibilant or guttural to a liquid; and from the presence or absence of a servile definitive. In the ancient Bhotian and the allied southern forms, and in the less emasculated Mon-Anam forms, the Scythic consonantal finals are found much more frequently than in Chinese. Even the ancient Chinese forms are frequently less consonantal than the Mon-Anam, the Scythic and many of the ancient Bhotian. The influence of the modern emasculated Chinese is strongly marked in all the Tibeto-Ultraindian phonologies, including the broadest and most consonantal.

3d. There are special Ugro-Turkish and Turkish affinities.

4th. Various forms of the roots must have been carried by different routes and migrations, and by different tribes, from Tibet across the Himalayas.

5th. From the variety of these cis-Himalayan forms, the mode of their distribution, and the preservation of several that have been lost in Tibet, it is certain that the Tibetan migrations to the southward commenced at a very remote period.

6th. In the Gangeto-Ultraindian province these forms were further dispersed and modified; and distinct lines of diffusion are recognizable.

7th. It is probable that from each of the southern ethnic districts of Tibet, migrations have taken place in different ages, and that the limits and mutual relations of the tribes have varied. At present the tribes in contact with the sub-Himalayans, and possessing all the known passes, are the Bhotias and the Takpas.

The Bhotias are conterminous with the Gangetic tribes of the Himalayas, from the Tiberkhad to the Mishmi. The Takpa appear to march with the Dophla and Abor. They are succeeded again by the Bhotias of Kham, who possess the passes at the head of the Assam valley, descend as traders into the Mishmi country, and probably march with the eastern Abors. The Bhotian dialect appears to march on the N. E. with the Mongolian Sokpa, which, on the south, is separated by the Amdoan dialect of Bhotian from the Thochu. To the south of the east, the Gyarung appears to march with Bhotian throughout the rest of its eastern limit. On the western half of the northern boundary, Bhotian is succeeded by the Horpa,—which has Bhotian on the south, Mongolian on the east, and Turkish on the north-west. It is thus, like Sokpa, widely separated from the south Himalayan dialects, but there are numerous scattered Horpas as well as Sokpas in Tibet proper.

The Thochu appears to have the Bhotian on its north and west, Gyarung on its south, and Chinese on its east.

Gyarung has on the N., Thochu,—W., Bhotian,—S., Manyak,—and E., Chinese. Whether it approaches any of the passes of the Irawady basin does not appear. It probably embraces a portion of the basin of the Me-nam and Yang-tse-kiang, and marches with the other dialects of south western Sze-chuen. The Manyak is probably interposed between it and the northern dialects of the Burman and Lau families.

The Manyak appears to lie to the southward of the line formed by southern Gyarung, Khampa Bhotian and Takpa. It is probably therefore placed on the Irawady passes, and may be in contact with some of the undescribed dialects to the north of the Singpho. On the east and south the Manyak are probably conterminous with some of the tribes of S. W. Sze-chuen, and N. Yun-nan, if indeed they are not themselves the Mong-fan of Sze-chuen.

From this distribution of the Tibetan dialects we should infer that the position of the Bhotian vocabularies would enable them to affect the whole line of the Gangetic ones,—that the influence of the Takpa would be confined to the Abor group,—and that the Manyak and perhaps the Gyarung might affect the Irawady vocabularies.

We find, however, that many of the vocables that are distinctly Bhotian, i. e. both in form and meaning, have a very limited range, by no means commensurate with the present influential position of the dialect, and irreconcilable with an exclusive possession, for any long period, of such a position.

Many of the most widely diffused Ultraindo-Gangetic roots and forms are common to Bhotian with Sifan vocabularies. Others are exclusively Bhotian, and others again are exclusively Sifan. The broad and frequently consonantal forms prevailed in Tibet when the southern migrations commenced, for they are the most common in the southern vocabularies. These archaic forms are frequently still retained in Bhotian, where the Sifan forms have become slender or vocalised. Manyak sometimes retains broad vowels where they have been lost in the other Sifan vocabularies and especially in Gyarung. The Sifan vocabularies have some non-Bhotian roots and forms in common with Mon-Anam, as might have been anticipated from the northern origin of the latter formation. The slender and attenuated forms of the Sifan vocabularies, and particularly of Gyarung, have spread to the south at a comparatively late period.

There have been two well marked periods of Sifan and Bhotian influence in the south. The first was when the southern migrations commenced, and when the Sifan forms of common roots were probably the same as the Bhotian. It is difficult therefore to ascertain what common roots of this period are to be considered as of Bhotian or of Sifan origin exclusively. The prefixes afford some clue. The second period is a very modern one. The Bhotian forms referable to it are in general confined to the southern Bhotian dialects, to the adjacent Nipal dialects, and to Takpa, but they are also partially found in more southern dialects. The spread of the later or slender Gyarung forms to the southward indicates a distinct movement from the archaic Tibetan and the modern Bhotian migrations.

The Chinese influence on the Tibeto-Ultraindian dialects has been of the highest importance, and very complex. There is a radical community of roots. Chinese has at later periods given numerous vocables to all the Tibetan vocabularies, and many of these have been carried to the southward. Chinese has also directly influenced all the southern phonologies and vocabularies, Mon-Anam, Naga-Manipurian, Karen and Burman. From these, and especially from Naga-Manipurian, Chinese roots and particles have been carried westward to the Nipal and Milchanang vocabularies.

The Gyarung is closely and immediately connected with the latest of the dominant North Ultraindian families, the Burmanic. As this family extends from the Singpho and Jili in the north of the Irawadi basin to Burman in the south, it is probable that it arose from an extension of the Gyarung to the south, but it also appears to have had a common basis with the older Ultraindian dialects. The Abor dialects appear to be partly embraced in this system, and it has influenced the Nipal vocabularies.

The Naga-Manipurian branch appears to be older than the Burmanic, and to be specially connected with Gyarung in its older or less emasculated form, and with Takpa. But as it has archaic affinities with Thochu, Horpa and Bhotian, it is probable that several Tibetan dialects have marched with the Gangeto-Ultraindian, and, during a long course of time, successively or simultaneously disseminated their vocables to the southward. The Mon-Anam affinities of the Naga-Manipurian vocabularies greatly strengthen the inference that their connection with Ultraindia is very archaic.

The Himalaic glossary is, in great measure, primitive and homogeneous. The dialectic modifications of the same roots are so various and so well marked, as to show that the group has retained its independence and segregation from the very commencement of glossarial development, and that distinct dialects were formed during that era. So far as other vocabularies are radically connected with the Himalaic, the connection is mainly to be ascribed to their having been primitively branches of the same stem,—dialects of the same mother-tongue. The Himalaic branch has remained more homogeneous and more faithful to the primary phase of the common glossary, because the location of the tribes who have preserved it has given them a high degree of exemption from foreign domination and influence. The glossary is less mixed than that of most of the other linguistic families, while it has radical affinities with all of them. The Caucasian group occupies a similar sequestered position, and it is radically related to the Scythic, Semitic, African, Indo-European and Dravido-Australian, in the same mode as the still more primitive Himalaic is related not only to it and to these, but to the Mon-Anam group and to the Chinese.

The Himalaic glossary has spread to the southward over all Ultraiudia, much of India, and most of Asonesia. Whether the Ugro-Caucasian and other cognate glossaries spread from the Himalaic province, or the Himalaic were derived, with them, from some other primitive seat, is a question that does not admit of so ready an answer. But from the pronouns and particles, it is probable that the ultimate basis of the Himalaic glossary was a Chinese dialect, and that the great mass of the substantive vocabulary was introduced from the primary Scythic province. The Dravido-Australian glossary appears to have been also formed at a period long preceding the spread of the Himalaic glossary in its present form to the southward of the mountains, by the engraftment of a Scythic form and glossary on a Himalaic basis.

#### NAMES OF ATTRIBUTES.

Mr. Brown's vocabularies contain substantives only, so that the Manipuri dialects are not included in this comparison. The omission is unfortunate, as, next to the definitives and pronouns, attributive words (qualitatives and assertives) are the most stable.

The relations shown by the distribution of the names for the colours and their various applications, are, for the most part, archaic. In Tibet various forms and applications appear to have arisen in an early period of the history of the formation. Both the primary full forms and the secondary contracted ones, are found in the Gangeto-Ultraiudian vocabularies.

For example, the most important of the Tibetan roots for *black* is the liquid. In the existing Tibetan vocabularies it has several forms and applications. The full archaic form was probably *nag*, *nak*, *lag*, *lak*, *rag*, *rak* &c. It retains such a form in the words for *black* and *crow* in Bhotian and Gyarung, and in several of the Irawady and Gangetic vocabularies. It takes the dental or guttural prefix in Gyarung and several of the southern dialects. A form with the labial prefix is also very archaic. It is found in the word for the *crow* in Bhotian and Gyarung, and contractions of it are current in Bhotian words for *blue* and *red*, in Gyarung and southern words for *night*, and in Naga words for the *crow*. These applications show that the root must have been at one time current with the labial prefix in Tibet, in its primary meaning, *black*, *dark*. The Bhotian *mo-n*, *wo-n blue*, Murmi *mo-n night*, Gyarung *mo-r night*, even render it probable that the form *mo-nag*, *mo-rak* &c. had acquired the contracted form *mo-n*, *mo-r*, before it ceased to be used with its primary meaning. It is not probable that the same dialect would have both the full and contracted forms current as *black*. The formation and preservation of distinct varieties of the same root, and the restriction of each to a specific use, are mainly effects of the existence of dialects. The application of other varieties to *red* must be explained in the same way. The Bhotian *ma-r*, Gyarung *ve-r*, were probably derived from a dialect in which the labial pref. was *ma-* and not *mo-*. The form of the root in the more common word for *red*, *ngi*, *ni*, shows that it originated in a dialect in which *nak*, *black*, had taken the slender form, *nyak* or *nyik*. This attenuation of the archaic forms distinguishes the later from the older Tibetan phonology. It is a Sifan and Horpa trait. The contracted form *ni*, with its application to *red*, must therefore be comparatively modern. *Red* must have been known by other terms or forms in the earlier ages of the formation. Horpa and Thochu having the slender form of *nak*, with its primary meaning *black*, the



source of the secondary word *ngi, ni, red*, is manifest. As *Thochu* has a distinct vocable, it probably spread from *Horpa* to *Gyarung* and *Manyak*. It has not been received by *Bhotian*; and *Gya ung*, in adopting it, has retained also the older word (*ka-ver-ni*). The *ni, ling, ri, nya*, of *Burman*, *Angami*, &c. show that it has spread to the south.

*Black.*

*nag-po* Bh. w., *nak-po* Bh. s., and *Takpa, nya-nya Horpa, nyik Thochu, ka-nak Gyarung, da-na Manyak*.

Obs. The *Gyarung* form is the same as the *Bhotian* sp. The vocalic and elliptic *nya, Horpa*, is perhaps the original of the *Manyak na. Thochu* has the amplified vowel of *Horpa* and *i* for *a*, as in so many *Sitan* words.

In most glossarial groups the root for *black* is applied to other dark colours, *blue, green, red* &c.—to *darkness, night, the crow, &c.*—as that for *white* is to *light, bright, day, sky, air, sun, moon, silver* &c. The *Tibetan* vocabularies are too limited to enable us to trace the applications and affinities of the root for *black*. That for *blue* is not given. The roots for *green* are different. The *Tibetan* and *Scythic* roots for *black* are applied to the *crow*;—*nyag-mo Thochu, ak-po Takpa, ab-lak Bhot. sp. (ha-lak Serpa), ta-b-rok Gyarung, a-lok Lepcha, ku-tha-rak Khoibu, (rok black, Milchanang), m-long-ya Gurung* (also *black*); *khère Sokpa, kal Horpa, kali Manyak* (*kara, black, Turkish, chara Mongol. &c.*) The ultimate *Scythic* root is probably found in the *wr. Bhotian khata, Sunwar khad, Newar ko. In Sanskrit* the root *kara* has both applications, as in *Scythic*.

The *Tibetan* roots for *night* are different, but I give them here as they are applied to *black, blue, green*, in some of the southern vocabularies.

1. *m-tshan-mo* Bh. wr., *a-sha Thochu, chen-mo* Bh. sp., *sen-ti Takpa, (-ti* as in *gok-ti head, nyen-ti day* &c.). Comp. *achsham Turkish, so, chei Mong., sai, sii, shig Yeniseian. In Chinese* the root is *black, tso* (also, *hak*) *Quang-tung* [*hi, wu Kwan-hwa*].

2. *spha Horpa* [*spha, shpa Pashtu, shab Hind., chshefe Zend, kshapa, Sansk.*]

3. *to-di Gyarung* [*tin Turkish, oti, at &c, Ugrian*].

4. *tong-mor Gyarung*.

5. *kwaka' Manyak*.

The root *tshan, chen*, is also used, in combination with another root, for *green, h-jang khu Bh. wr., jhan-gu Bh. sp., Horpa, zyang-ku Thochu, chan-gu Takpa*. The second root is *green* and *blue* in *Scythic, kho-kho Sokpa, ko-ko, ku-ku Mong., Tungusian, ko-k, ku-k Turkish*. The *Tibetan tshan, sen, zyang* &c. is used in *Chinese* for *green* with the same form *sang, tsing*.

The common *Tibetan* root for *black* is not, in the *n-g, l-k* form, *Chinese*. It belongs to the *archaic Scytho-Tibetan glossary*. *Scythic* vocabularies have distinct roots for *black*, but *nog* is applied to *blue* and *green*; *nog-on blue, green Tungusian, nog-o, nog-on, nach-on green Mongolian*.

The *Tibetan* root is found with the same meaning in the *Naga gr. ta-nak* (*Gyarung ka-nak*), *a-nyak, nyak, nyak-'a, nak*,—*Burman nak, net, (Koreng, orow, nget)*,—*Bongju nik-ua*,—*Garò pe-nek*,—*Abor yak-ar, yaka-dak*,—*Lepcha a-nok*,—*Milchanang rok, reg*, (also *blue, rak, rok, and green, rag*). It is both *black* and *blue* in *Joboka nak, Nogaung tu-nak, and Tengsa nyang blue, nyak black, Gurung m-long-ya, Murmi m-lang-ai*. *Kinawari Bhotian* has *nang-mo* as well as *nak-po*. *Khari Naga* has the form *luk* in *shim-phu-luk, green*.

Mak is merely a variation of nak. In Gyarung it is applied to *green*, *kar-myak*. It is found with the meaning *black* in Taying Mishmi, *miak-wa*, Limbu *ku-mak-la*, and Kiranti *maka-chak-na*.

Both forms, nak, mak &c., enter into names for *night* (*sky-black*, *air-black* &c.), *darkness* &c. Namsang, *darkness*, rang-nyak (rang-vo *light*, i. e. *sky-white*, a-po *white*); Muthun rang-nak, *darkness*, *night*; Joboka rang-nak *darkness*; Mulung, *darkness*, nyak, *night*, vang-mak; Tablung, *darkness*, nyak, *night* vang-niak; Burman, *night*, nyin, nya.

The Tibetan tshan, sha, chen, sen, *night*, is both *night* and *black* in southern vocabularies. As *night* it is found in Naga *e-sang-di* (sen-ti Takpa), Limbu *ku-sen*, sen-dik (Takpa sen-ti), Newar cha, Kapwi zying-pha, Koreng *n-chun*, Manipuri *a-hing*.

As *black* it is Singphu chang, cham, Bodo *ga-cham*, Mon chang, *ka-tsau*, *ka-chok*, Changlo chang-lo.

The Karen thu, thun, su, is not Tibetan but Chinese, tso.

The Tibetan form is also applied to *green*, as in Tibetan, and to *blue* and *red*. Blue Khari ching-mi and Namsang *a-ham*. *Green*, Tengsa and Nau-gang *ta-cham*, Khari shim-*phu-luk*, Namsang *a-hing*, Joboka hing, Kiranti *chak-la*. It is applied to *red* in Kyau *a-tshen*, Khyeng sen, Bongju tsin, Mon chang, Namsang *a-chak*, Garo *pi-sak*, Bodo *ga-ja*, Miichanang shing. The Thochu shi-dzi, *red*, is probably the same root.

The Magar double chik chi appears to be a slender form of *chak*,—as che, sen &c. is of tshan &c.

The Gyarung *to-di night*, (Scythic *oti*, tin &c.) is the root for *black* in Angami *ke-ti*, *ka-ti*. It is probably found in *ti-zi night* in the sonant form *zi* [= *di*, Gyar.), *ti* being *sky* and *ti-so day* (*sky-white*). Tengsa *a-sang-di*, *night*.

The Gyarung *mor*, *night*, is not a common form in the Tibetan vocabulary of colours. It has the same meaning, *night*, in Murmi, mon. The pan of rang-pan, *night*, Namsang, is the same vocable, and it is also found in Garo walo, Maram mula, Champung *nga-yula*, Luhuppa and N. Tangkul maya (y for l, r), S. Tangkal ayan,—forms which accord with the inference deducible from those used for *red*, that the root is the liquid *la*, *ra*, *na* &c. identical with *na-k* &c., and that mon, mar &c. are contractions of which the primary Tibetan form was probably *mo-nag*, *ma-rag* &c. Comp *ab-lak crow* &c. Bhotian has mon-*vo*, *s-won*, *blue*. It is *red* in the form mar Bhotian, ver Gyarung, wol, bala, &c. Gangeto-Ultrindian. The primary meaning of *black*, *dark*, is necessary to explain the various applications. It also explains its use as a name for the *crow*, walo, waru Naga, ola Lhopa.

The Lhopa phi-ru *night*, appears to be a similar vocable.

The Manyak kwaka' *night* appears to be the same reduplicated guttural root that is applied to *blue* and *green* in Scythic. It is current for *night* in Kiranti khakwe. The Deoria Chutia *sa-ko-koi* and Mikir *a-ku-k black* (Mikir ingting kok *dark*) are the same term.

The Lhopa nam-*mo*, Magar nam-*bik*, Sunwar na-*do*, Lepcha, Jili, *sa-nap*, Singpo *sa-na night*, contain the Tibetan word for *sky* nam (Khamti *nap-sing dark*).

Nam, *sky*, may itself be identical with the Chinese lam, *blue*, and thus be merely one of the archaic forms of the Chino-Himalaic and Scythic liquid root for *black*.

The Magar bik in nam-bik *night*, is Scythic, pit, pit-*n night* Samoiede, piti, piggita &c. *black* Ostiak (his *blue* Yeniseian).

The Lau khun *night* is not Tibetan.

*Red.*

1. s-muk-po Bh. wr.
2. mar-po Bh. sp., ka-ver ni Gyarung.
3. gi-ngi Horpa, ka-ver ni Gyarung, da-ni Manyak, leu Takpa.
4. shi-dzi Thochu.

1. The old Bhotian muk is not found with the meaning *red* in the southern vocabularies. Limbu has muk-loh, *blue*, and it may occur with that application in others.

2. The sp. Bhotian mar, Gyarung ver, is a common Scythic, Caucasian and Semito-African root. If the labial be radical, the vocable is rare in the south Himalaic tongues. The Murmi bala, wala, Gurung wol-kyä, resemble it, and they suggest that la &c. and bala, mar &c. are ultimately the same root (*ma-ra, ba-la*). See *Black*.

3. The Horpa, Gyarung and Manyak ngi, ni and Takpa leu are forms of a Chino-Himalaic root common in the Ultraindian tongues. Burman ni, Kumi p-ling, kan-lein, Toungthu ta-nya, Angami m-ri, ke-me-ri, (comp. Gyarung ver, prob. *ve-r*), Naga gr. ma-lam, ma-lam-la, ta-mu-ram, ma-ram, Kambojan ka-rhum, Deoria Chutia sa-ru, Abor ya-lung, lu-dak, Sunwar la-la, Kiranti ha-la-la-wa, Limbu ku-he-la, Lepcha a-he-ur. (Comp. Mong. ulan red).

The root in its broad consonantal form is *blue* in Chinese, lam Quangtung, lan Kwan-hwa, whence the Karen la, tu-la, Limbu leh-la. Chinese has also *lu green*.

The application of lam to *red* and *blue* seems to show that its primary meaning was *black, dark* &c., for the same word would hardly be transferred from *red* to *blue*, or *vice versa*. In the older Himalaic formation of Ultraindia—the Mon-Anam—the root retains the meaning *black, dark* &c. Siam, Laos, Ahom dam, Khamti nam, Laos nin (the slender Tibeto-Burman form for *red*, ni, ri, ling &c.), Siam dam nin, Anam den (*night dem*), Kumi ka-num, Kami ma-nun, Kasia *darkness dum*, Nicobar *black ringulum-t*, Toung-thu pa-leng. The root is very common in the Indonesian vocabularies in various forms, applied to *black, night, dark, fog* &c. tam, lam, lom, rang, rum, ri &c. &c.

The slender form is also *red* in the Lau family, deng, neng, len, forms corresponding with the Kumi ling, lein *red*, Tunghthu leng, Lau-Anam nin, den *black*, and indicating a special relationship between the Mon-Anam and the older Irawady vocabularies.

The Dravirian and North Gangetic languages have the same root. The Male mar-go, *black*, is identical with the Bhotian mar *red*. The Kol ara, Telinga erra-pu, and the Hindi lal and Bengali ranga, resemble Nipal forms of the Chino-Himalaic root.

Finally, it appears probable that the Tibeto-Ultraindian nak, nang, lok, rok, long, lang, nyik, na &c. &c. *black, blue*,—the Chino-Ultraindian lam, lan, lu, nan, ram, lung, ru, nun, num, dum, &c. *blue, green, black, red*,—and the Tibeto-Ultraindian ni, ngi, ri, nin, ling &c. *red*, are all variations of one primary liquid root, which, in the eastern branch of the primitive glossary, early took the form la-m, la-n, and in the Tibetan the form na-g, la-g &c. The Sifan ni, ngi *red* (whence the Ultraindian ni, ri) has the slender form proper to the later Sifan phonology, and the original was

probably the common Tibetan root for *black*, which has undergone variations that approximate it to *ni*, the current gradations being *nak*, *nyik*, *nya*, *na*. The *m* forms for *black*, *blue* &c. in the Irawady and Mon-Anam vocabularies are evidently eastern or Chinese, and not Tibetan, in their immediate affinities. They appear to have been communicated by the Mon-Anam to the Tibeto-Ultraindian vocabularies.

The Tibeto-Ultraindian *tshan*, *sen* &c. *black*, *night* &c. is, as we have seen, applied to *red* in Singpho and some of the Yuma dialects.

A guttural root is found in Singpho, Khyeng, Joboka khi, Mon kit, ket, Karen go, gho, Magar *gya-cho*.

#### Green.

1. *h-jang khu Bh. wr.*, *jhan-gu Bh. sp.*, Horpa, *zyang-ku Thochu chan-gu Takpa*.

2. *kar-myak Gyarung*.

3. *chu gin do Manyak*. (? *chu-gin-do* a form of 1).

1. *jang*, *chan*, *zyang* &c. is the Tibeto-Ultraindian root for *black*, *dark*, *night* &c. already examined. It is applied to *green* in Naga dialects and in Kiranti. That this was an archaic application is shown by the Chinese *tsing*, *sang*. The guttural is the Scythic root for *blue* and *green*, also current in its double Scythic form in Manyak and some of the Gangetic languages for *night*, *black*, *dark*. The double form with a slender vowel is *green* in Sunwar *gi-gi*. Miri has *ge dah*.

2. The Gyarung *myak* is one of the forms of the Tibeto-Ultraindian *nak*, *nyak black*.

The southern names for *green* are derived from the roots for *black*. In the Naga group we find *tu-cham*, *a-hing* &c., Kiranti *chak-la*.

Limbu has *leh-la*, Serpa and Lhopa *num-mo*, *nhyam-bo*, Gurung *ur-kyä*, Milchanang *rag*, Khari *shim-phu-luk*,—all forms of the liquid root also used for *black* &c. Chinese has *lu green*.

A labial is common. Angami *ke-peje*, Lepcha *phung phong*, Murmi *ping-ai*, Newar *wa won*, Magar *phi-phi dan-cho*.

#### White.

1. *d-kar-po Bh. wr.*, *kar-po sp.* The Bhotian *kar* is probably a contraction of *ka-ru* (Comp. *khe-ru Takpa*).

2. *phru phru (ph-ru)* Horpa, *khe-ru Takpa*, *ka-prom Gyarung (p-rom)*, *da-lu Manyak*.

3. *phyokh Thochu*.

1. The Bhotian *kar*, if not a contraction of *ka-ru*, is archaic Scythic,—*kyr* Samoiede, *gil-taldi Tungusian*.

It is applied to *star* in Bhotian, *s kar-ma*, *kar-ma*, (Abor *ta-kar*), Horpa *s-gre*, Manyak *kra* (Burman *kre*).

In its primary meaning *kar* is only found in the south Bhotian dialects of Serpa *kar-po* and Lhopa *ka-po* (*star ka-m*). The Murmi *tara*, Gurung *tar-kyä* (also *star*) are modifications of it.

2. The more prevalent Tibetan *ph-ru*, *da-lu*, *ka-p-rom*, is Mijhu *Mishmi kam-ph-long*, Singphu *ph-rong*, Burman *ph-ru*, *ph-yu*, Kumi *k-lung*, *kan-lum*, Kami *a-lum*, Kyau *ag-nung*, Bongju *k-lang*, Gara bok-lang *Mikir ako-lak*, Dohphla *pung-lug-pa*, Lepcha *a-dum*, *a-dom*. A slender form is found in Taying *Mishmi*, *leo-wa*, Kasia *ba-lih*, and Deoria *Chutia pu-ri*.

The Mijhu, Singphu and Burman forms, *phlong*, *phrong*, *phru*, are re-

farable to the later concentered Horpa and Gyarung phru, prom. But the more common form in which the root does not take the labial prefix must be of older Tibetan derivation.

The root is applied to *air, light, day, sky, moon, star, &c.* The Tibetan forms for *air* have both the *u* and *a* vowel, as well as the slender modification lhak, dak; rhot, lung, ryu, zyu; li. The archaic final consonant is preserved in some of these forms. Similar forms are found in the southern vocabularies. The variation nung, nong, occurs in the Manipuri gr.; lom in Lau; and rang, nang, lam, lan &c. in several Na-ga-Gangetic vocabularies. The Tibetan names for the *moon* have the same root in the forms la, da, lik, le', the', le, —lik, le' &c. retaining the guttural final as in lhak, da' *air*. The *u* form is found in the Lau lun, Siam duen, nung, Yuma s-lu, lo. Anam has *b-lang, b-lang*. For *star* Gyarung has *tsi-ni*; Nam-sang *me-rik*; Mon nong, Lau fam., lau, dau, nau. [See 4, Names of inanimate natural objects].

The Chinese leuk, *light* in colour, is probably the same root.

3. The Thochu phyok may be a softening of an archaic form of 2. phyok for phrok. But as there is nothing to justify such an opinion, it must be considered as a labial and exceptional root.

The Chinese term is the same root. Kuang-tung preserves the full form pak. Kwan-hwa has pe. It is found also in the Tungusian bak-da, wag-da. Fin has wal-gi, Ugrian woi-kan &c., but the prevalent Scythic roots are different.

In the south it is only found in the Lau family, and some of the Irawadi-Gangetic vocabularies that have most affinities with that family.

Lau pheuk, Ahom phok, Khamti phuk, Khyeng buk, Bodo *gu-phut*, Garo bo'k-lang, Naga *a-po*, Miri *ham-po-dik*, Toung-thu and Pwo Karen bwa, Sgau Karen wa, Magar bo-cho, Sunwar bwi-sye. (Naga ting-puk *sky*). From the vowel *u, o*, occurring throughout, all these forms appear to be referable to a single vocabulary, probably the Lau. The contracted Naga-Karen forms are the parents of the Nipal bo, bwi. The *o, u* vowel connects the Lau with the Thochu form and not with the Chinese.

The Lau fam. has also a distinct root khau, khong.

The Naga *ma-sang, tu-mu-sing, me-sing, heng, che, choh, Angami ka-cha, Dhimal jee-ka, Mon tchu, Nicobar te-so, ti-so-ab, Sunwar sye of bwi-gye, Tiberkhad ohong*, is a root common as applied to *light, star, moon &c.*

The Thochu *chha, moon*, appears to be the same root. It occurs with the same meaning in the Manipurian *ka-chang, Milchanang ga-tchang* (Tiberkhad *chang white*), Manyak *nash-chah dwy, sun*. Jili has *ka-tsan, Singpho tsan, Bodo shan, Garo san, ra-san, Naga san, Kol singi, Burman a-si, N. Tangkhul a-sun, Tiberkhad zhang-ma; tsing-mik sun Luhuppa (day-eye), shi-mit N. Tangkhul. Light*.—Jili has *thwe, Singpho zang-thoi, Tangkhul she, shea, Kasia ba-shai. Star*.—In Chinese it is applied to *star, sing, sing, shan Kwangt.; tsin, tsing, is light (in colour) clear &c. Shy tsang tien, tien Chinese, yi tien day.*

Obs. 1. Both broad and slender forms of the roots have been anciently current in Tibet and have received different dialectic applications. The same root has also been applied differently in different dialects. Thus *nak* or *lak* is *black* in one voc., *crow* in a second, *blue* in a third, *green* in a fourth, *darkness, night*, in a fifth. Shan &c. is *black* in one dialect, *night, dark, blue, green, red*, in others. Where the root has more than one application in the same dialect the different meanings are sometimes distinguished by the definitives, as well as by the form of the root. This use of the def. is generally arbitrary. It sometimes

runs through several dialects, indicating a diffusion of the term, but in other cases the same def. occurs with a special force in one dialect and without it in others. Bhotian has *nak-po black*, *at-lak crow*; Thochu *nyag-wo crow*, *nyik black*; Gyarung has *ka-nak black* (corresponding with the Serpa form of Bhotian *ka-lak*), while for *crow* it prefixes *ka* to the Bhot. compound of the root and the labial pref., *ka-b-rok*; Gurung uses the labial form with both meanings—*m-long-ya*. In the southern dialects the root occurs with the labial pref., and with the guttural or dental, in its primary meaning *black*, while one of the Manipuri dialects prefixes the gut. to the dental in its word for the *crow*. All this is a consequence of the present dialects having been formed when the roots were not concentered with the prefixes, and when different def. might be used for the same purpose.

2. Slender forms of the root occur in Thochu *nyik*, Burman *net*, Koring *nget*, Bongju *nik*, Garo *nek*, Milch, reg. *black*; Bhot. sp. *chen*, *night*.—Takpa, Limbu *sen black*.—Naga gr. *ching blue*, *hing green*.—Yuma *sen*, *tsin*, Milch. *shing red*; Horpa *ngi*, Gyar. *Man*, Burm. *ni*. Angami *ri*. Yuma *ling*, Lau *fam. len*, *deng* &c. *red*.—Lau, An. *nis*, *den*, Toung-thu *leng black*.—Burm. *nyin night*. The liquid root for *white* has only broad forms with that meaning in Tibet, but slender ones occur in the names for the *moon*. Deoria and Kasia have slender forms for *white*.

3. The special East Tibetan connection with the southern languages is well shown by the word for *red* in Gyarung. Manyak and Burman, *ni*; and by the word for *white* in Horpa, Gyarung, Mijhu Mishmi, Singphu and Burman, *M. M.* preserving the double pref. of Gyarung. It also illustrates the special Gyarung and north Irawady element in Burman as distinguished from the older dialects of the same family, the Yuma forms being Takpa (which again appears to be Bhotian).

4. The Karen *thu*, *thun black* is Chinese; *ti la. la blue* is probably from the Chinese *lam*, and some of the Naga and Nipal terms appear to belong to the same relationship; *wa, hwa white* (*taka po light*) have Naga and Nipal aff.

5. The Mon-Anam family have a distinct archaic form of the liquid root for *black* and *night*. It is retained in the Yuma dialects and Kasia in a broad form; Lau and Anam have *e* forms. Slender forms are also applied to *red* in the Lau fam., and were probably communicated by it to those dialects of the Tibeto-Irawady family that first spread to the south, as these forms are found in Toung-thu and Kumi. The Lau word for *white*—similar to the Thochu—has been communicated to Khyeng, Boro and Garo; and in Karen and some Naga and Nipal dialects it is retained in a softened form.

I add a few more words of this class for the purpose of illustrating the connection between the Himalaic and Asonesian languages, but without attempting any exact comparisons. They are roots of a class that have many applications, and several of the published vocabularies do not contain them.

### Large.

#### TIBETAN.

1. *chhen-po* Bh. wr., *then-do* Takpa, *kam-thu* Horpa, *ka-hti* Gyarung.—See *Long* 2. Chinese, *long*, *cheung*, *chang* &c.

2. *s-bom-do* Bh. wr., *bom-bo* s. and Lhopa, *pwi-tha* Thochu. Chinese *pi great*.

3. *kah kah* Manyak. ? Chinese *ku*; *broad kwan kwoh*.

#### SOUTHERN.

1. *the-ba* Gurung, *a-ti-m* Lepcha, *a-chung* Muthun, *chong* Joboka, *yong* Mulung, *yong-nong* Tablung, *joh* Angami, *jo-pur* Mozome A., *yom-ba* Limbu, *nga jang* Murmi.

2. *gu-ba* Singpho, *ta-pe*, *te-be* Tengsa Naga, *ta-pe-tiau* Khari, *jo-pur* M.

Angami (jo-su long), bote Abor, (*fat*, *ta-bok* Tengsa, Nogaung, *ta-bit* Khari, wa Burman, phum Singpho, also *fat* = *gu-phung* Bodo, kwi-par Gyar., *round* wa' wa' Manyak.

4. *ka-tai* Mijhu Mishmi, *a-ta-dak* Miri, *u-to-yang* Kiranti, *tau-go* Newar, *go-da* Garo, *go-det* Bodo, *dham-ka* Dhim., (*fat a-ta-t* Namsang). This root is Chinese, tai, ta, Anam dai.

5. *d-rung* Taying Mishmi, long, lung, luang, Lau f., *ta-lulu* Nogaung Naga, *yong-nong* Tablung, *a-dong* Namsang, nau Muthun, do Karen, len Khyeng, Kumi, leng Kami (also *fat*), *tha-not* Mon, (*fat*, *u-do* Abor, tok, tup Burm.). See *Long* 1, Tib. ring, Southern long, lang &c.

*Round*, *ka-lar-lar* Gyarung, lo-lo Horpa, *z-lum-po* Bhot. wr., ri-ri sp., *di-rhi* Takpa, *a-sya-ra* Thochu, *ta-rang* Nogaung, din-din Singpho, *k-lom* Siam, Ahom, *k-om* Lau, *pu-lun* Kami, *pu-lu* Khyeng, *ph-lu*, *ph-lon* Karen, lun, long Burman, *tung-lung* Toung-thu, *rer-rer-bo* Lepcha, *ri-to* Murmi. The Serpa *gir-mo*, Sunwar kul-kul *round*, Serpa *gir-bu fat*, Burm. kri, Magar kran, are probably contractions of the common monosyllabic kind of forms similar to the preceding—*k-ri*, or *hi-ri*, *gi-ri*, *ku-lu*—*ku-lu*, *ka-ran* [=Gyar. *ka-lar*, Nög. *ta-rang*, Mon *fat ka-ra*].

5 a. kri, kyi Burman, *gir-bu* Serpa, *kran-cho* Magar, (*round*, Serpa *gir-mo*, Sunwar kul-kul, *fat ka-ra* Mon, *kal-bo*, gal-vo Horpa, *cher-wa* Thochu). Prob. 5.

5 b. Lau f. yai, yau (also long). Prob. from lau, rau, forms of 5 used for long.

#### Long.

#### TIBETAN.

1. ring-po Bh. w., rim-bo Bh. sp., ring-bo Takpa (*zug-ring tall*)
2. ka-chi Horpa, dri-thú Thochu (ur thú Sokpa), sha-sha Manyak. See *Large* 1.
3. ka-sri Gyarung (also tall); dri, Thochu and sri Gyar. may be s-ri, d-ri (1). In like manner the Manyak hra hra, tall, may be h-ra.

#### SOUTHERN.

1. ka-long Taying Mishmi, *ga-kh-rang* Mijhu M., *ga-lu* Singpho, Bodo, rhin-ka Dhimial, *ta-lang*, *a-lo*, lo, lau, lang-ko-lo, Naga, *pi-lo* Garo, lot-cho Magar; rhin Burm., *k-er-k-re* Angami, *ka-lein* Mon, lui Deoria Ch., yau Lau f. [lau Nag.], *reng-ba* Murmi, rhim-bo Gurung, *a-rhen* Lepcha, (See *Large* 5, *Tall* 2).
2. she Burm., jo-su Mozome Angami. See *Large* 1.

#### Tall.

#### TIBETAN.

1. thom-bo Bh. sp.
2. ga-khye Horpa. Chinese ko, kau high.
3. bra-tha Thochu.
4. ka-sri Gyar., *zug-ring* Takpa, hra hra Many. See *Long* 1, *Large* 7.

#### Southern.

1. a-tho Lepcha, sung Lau fam. See *Large* 1, 4.
4. m-rang, m-yen Burm., lang-la Naga, lhun Khyeng, *tha-lon* Mon. See *Long* 1, *Large* 5.
5. tau Mulung, Tablung; Chinese kau; (t for k as in tau I, thu 9 &c.) tau-ga Newar large.

Obs. The root in *ch*, *th* occurs in Tibet both with broad and *alepde* vowels.

1. *thu large* Horp., *thom tall* Bh., *tho* Lepcha, *dri thu long* Thochu, *jo su* Moz. Ang., *a-tum round* Namsang. To this are related the Naga *large chung*, *chong*, *yong*, *Limbu yom*,—*Lau tall sung*, which are still closer to the Chinese *cheung long*. Kiranti to.

2. *sha long* Many., *bra tha tall* Thochu.

3. *chhen large* Bh. wr, then *Takpa*, *thi Gyar.*, the *Gur.*, *tim Lep.*; *chi long* Horp., *she* Burm.

The liquid root has similar variations.

1. *lum round*, Bh. w., *lom* Siam, *lo* Horpa, *lun*, *lu* Yuma, Burm., Kar.; *long long*, Taying Mishmi, *lu* Sing., Bodo, Garo, *lo*, Nag.; *rung large* T. Mishmi, *lung long* Lau f., *lu*, *dong*, *nong* Naga, *do* Karen.

2. *lar round* Gyar., *ra* Thochu, *rang Nogaung*; *ran fat* Magar, *ra Mon*; *rang long* Mijhu; *rang tall* Burm., Nag.

3. *ri round* Bh. sp., *rhi* Takpa, *din* Singpho, *rer* Lepcha, *ril* Murmi; *k-ri fat* Burm., *gi-r* Serpa; *ring long* Bh. wr., *rim* sp., *s-ri* Gyar., *d-ri* Thochu, *rhin* Burm., *reng* Murmi, *rhen* Lepcha, *rhim* Gurung.

Allowing for purely local changes, the distribution of these forms shows a special relation between Bhotian and Gyarung, and between both—but especially Bhotian—and the Irawady or Burman group on the one side, and the Nipal on the other.

As some of the dental words are variations of the liquid, I will only add the labial.

1. *bom large* Bh., *phum fat* Singpho, *phung* Bodo; *bote large* Abor, *bok fat* Tengsa, Nag., *po-tsu* Angami, *po-moja* Moz., *pur large*, *ke-mer round*, Ang.

2. *pan fat* Gyar., *tok pan* Kiranti; *ba large* Singph.; *pan round* Ahom, *man fat* Siam, *mon round* Khamti.

3. *pi large* Chinese; *pwi* Thochu, *pe*, *be* Tengsa, *pe*, *bi* Khari, *pi fat* Lau f.

The Lau *lom round*, *long*, *lung large*, show a Bhotian affinity, which Mishmi partakes; *yau long* is a Naga form, *lau* Tabl., *ti-lhaun* Khari, *nau large* Muthun; *sung tall*, *high*, is also Naga; *jo su* Moz. Ang., *chung large* Muthun; *pan round* Ahom, *man fat* Siam, are Gyarung; *tui fat* Lau, is Naga, *po-tsu* Ang. *a-syu-m* Lepcha, *sui-ni large* Deor, Ch.; *pi fat* is Chinese, *pi large*.

The Mon *tha-not large*, is *Joboka fat* nut, *Magar lot-cho long*; *ka-lein long* is the common T. U. term; *tha-lon tall* is *Khyeng* &c.; *ka-ra fat*, *Magar k-ran* &c.; *kha-toung round* is *Anam ton*, *Toung-thu tung-lung*, *Abor*, *Namsang*, *Deoria tum*.

The Kambojan *tom large* is *thu* &c. of Bhotian &c., but in the Bh. form for *tall* *thom*, *Namsang* &c. for *round*, *tum*; *mon round* is *Khamti* (*fat* Siam *man*, *Gyar. pan*); *ri-sing long* has the T. U. *ri*, *ring*; *ka-pos high*, (*bote large* Abor); *tui small* is a form of the C. H. root for *small*, *short*, occurring in the Naga gr. *tut* for *short*, *Joboka tut*, *Khari tut-si*, *Nog. tat-su*; *ki-le short* is *small* in the Lau f. *lek* (*Nams. a-ring*).

The *Anam dai large*, is Chinese (*Kwang-t.*) *tai*, and it has been communicated to *Mijhu* Mishmi, like many other *Anam* words; *jei thick* and *jei long* are probably connected with the *Angami se*, *si* and the cognate T. U. words; *ton round* is *Mon kha-toung*, *Toung-thu tung-lung*, *Nam-*



sang *a-tum*, Deor. Ch. *tumo-ru* &c., *Miri a-tum-dak*; *kau high* is Chinese *kau* (Kwan-hwa); *nyo small* is Chinese *lioh* (K-h.), or *Lau*, Burm. &c.; *thap short* is *Lau*, *tam*,—an archaic form of the Chino-Tibetan *twan*, *thung*, *tha* &c.

The K-t. Chinese *tai*, *large*, has been received by Anam and Mijhu; the aff. of *pi* and *ku* are archaic; *kau high* (K-h.), Anam *kan*, *Mulung* and *Tablung tau*, Karen *tho*, *to*, *Toung-thu a-kho* (K-t. *kò*); the close aff. of the roots for *small*, *little* with the T. U. appear to be all archaic; *chang*, *cheung long* has archaic aff.

*Small.*

## TIBETAN.

1. *chhung* Bh. wr: *chun-chung* Bh. s., *chung-bo* Takpa, *ka-chai* Gyarung, *bra-tsi-tha* Thochu. Chinese *tsin*, *si*, *shiu*, *siau*, *sai*, *sie*.
2. *phra* Bh. wr., *pru* Takpa, [*bra-tsi-tha* Thochu, *bra-tha tall*].
3. *kam-ma* Horpa.
3. *yu* Manyak.

## SOUTHERN.

1. *ka-tsi* Singpho, *ka-tshi little* Pwo Karen, *te-su* Tengsa Naga, *sui* Tablung, (*soh short*), *Mulung*, *ka-chu* Angami (*thin shya* Burm., *a-cha* Namsang, *a-chim* Lepcha, *yo-shu* Limbu, ? *a-hi-pia* Muthun, *hi* Joboku.
2. *a-ring* Namsang Naga, *ti-lala* Naugong Naga, *ning-haji* Khari, *lek*, *let* Lau f., (*thin*, *kam-rhang* Horpa, *ka-ri* Manyak, *rid-po* Bhotian, *nen-ma* Serpa, *ru-cho* Magar.).
3. *a-me-dak* *Miri*, *po* Sgau Karen, *pho* Pwo, (*phu short*), *a-hi-pia* Muthun, (*thin*, *ma-bo* Bhotian, *ta-pa* Kumi, *pam* Khyeng *a-po* Tengsa, *a-po-pr* Nogaung, *bye* ko Lhopa.
- 2 *che-ka* Taying Mishmi.
4. *a-ngi-do* Abor, (*gi-dak*, *thin*), *nge* Burman, *noi*, *on*, *lek noi*, *Lau f.* *nao* Khyeng, *nyo* Anam, *lioh* Chinese.

*Short.*

1. *thung-po* Bh. w., *thun dung* Bh. s., *thong-po* Takpa, *ka-chan* Gyarung, *h-tha-tha* Thochu (*man*), *ga-de* Horpa (*man*). Chinese *tun*, *wan*.
2. *kalge* Horpa.
3. *wong-chi-tha* Thochu.
4. *dri-dra* Manyak.
1. *ka-tyoa* Taying Mishmi, *ga-thi* Mijhu, *ku-tun* Singpho, *to* Burm., *do* Kumi, *doi* Kami, *twe* Khyeng *a-ton*, *ta-tsu*, *tut*, *so* Naga, *a-tan* Lepcha, *tang-ba* Limbu, *dung-ta* Kiranti; *tam* Lau fam., *thap* An. See *Small 1*.
3. See *Small 3*.
4. See *Small 2*.

*Eat.*

1. *zo* Bh. w., Takpa, *so* Bh. s., *ta-zo* Gyarung, *a-dz* Thochu, *nga-jen* Manyak (Chin. *shik*, *shi*).  
Burm. *cha*, *sa*, Singpho *shau*, Naga *chau*, *tyu*, *cha*, *sa*, *sang*, *ha*, *chi*, Mon *tsi*, Lepcha *zo*, *tha*, Limbu *che*, Kiranti *cho*, Murm. *chou*, Gurung *chad*, Sunwar *jau*, Magar *chau*.
2. *na-ngi* Horpa (? *ki* Chin.), *Lau kin eat*, *drink*.

*Drink.*

1. *h-thung* Bh. w., *thung s.*, *thong* Takpa, *na-thi* Horpa, *a-thi* Thochu, *nga-chho* Manyak.

chu-*ma* Taying Mishmi, thang-*chu* Mijhu (-*chu* assertive post.); Burm. sok, thauk, Abor tu-*pu*, tai-*pu*, Limbu thung-ne, Kiranti dung, Murmi thung, Newar ton, Gurung thunu, Sunwar tung, chu &c. *water*.

The root for *water* precedes another root in several dialects, Namsang jo-k (jo *water*), Joboka ti-ling (ti *water*), Muthun si-ngha, Tablung yang-ying (riang *water*), Tengsa tu-num (tu *water*), Angami zu-krat, M. A. dzu-kret (zu, dzu *water*).

2. *ta-mot* Gyarung.

#### Sleep.

1. nyan Bh. w., nye s., nyet Takpa, a-nan Thochu.  
Naga ana-*nu*, Murmi ngung, Lau fam. non, nap, lap.

2. *gur-gyun* Horpa.

Miri yum.

3. *hor-man* Gyarung (Chin. fan, min).

Mijhu mui-*chu*.

3. khai-ya Manyak.

4. Naga jip, jup, ipi-silo &c., Limbu ip-se, Kir. im-sa, Sunwar ip.

#### Come.

1. hong Bh. w., hai Thochu, s-byon Bh. w. *ha-pun*, *pa-pun*, Gyarung-Sunwar pyu, Newar wa. Mijhu hoi-*chu*, Taying M. hona-*na*, Lau fam. ma.

2. syo Bh. s., Takpa.

Singpho sou.

3. kwi-lhen Horpa, le-*mo* Manyak, (Chinese le, lai, lam, Sokpa ire).

Burm. rok, yauk, la, Naga a-rung, a-ha-lu, Magar ra-*ni*, Kiranti ba-*na*, Lepcha di, Limbu *pho-re*.

#### Gr.

1. song Bh. w., *ta-shin*, *wa-shin* Horpa, *da-chin*, *ya-chin* Gyarung (Ch. hu).

Burm. swa, Naga tsu, tong, Miri sa, Murmi sye go, Newar hon.

2. gro, gyu Bh. w., gyo Bh. s., (*h-gro*, *gyo*, *move*, *walk*).

Kiranti ka-ra, Sunwar lau.

3. *da-kan* Thochu (also *move*, *walk*), gai Takpa.

Burm. kwya, Naga kao, Limbu *be-ge*, Lau fam. ka. (a softening of *ya-chin*), yu Manyak.

4. ye-yen Gyarung.

5. *bo-na* Taying Mishmi, phai-*chu* Mijhu., pai, men Lau f.

#### NAMES OF INANIMATE NATURAL OBJECTS.

For *air*, *sky*, *day*, *sun*, *light* and *fire*, there are three principal roots in the Tibetan vocabularies, each occurring with all or most of these applications.

1st li, ni, ne, nyi, nye; lung, dung, rhot, ryu, zyu; lhak, da', nam, lang, nga.

2d ma, me, mi, mah, meh; mon, meun, mun; wuh, wot, hod, pho, uik, hwe, eu.

3d koh, khah.

The 1st and 2d of these roots are also applied, as we have seen, to *white*, *moon*, *star*.

	<i>Air.</i>	<i>Sky.</i>	<i>Sun.</i>	<i>Day.</i>	<i>Light.</i>
1 Bhotian	{ wr. <i>r lung-ma</i>	nam khah	nyi- <i>ma</i>	nyin- <i>mo</i>	hod
	{ sp. <i>lhak-pa</i>	nam	nyi- <i>ma</i>	nyi- <i>mo</i>	hwe
2 Horpa	<i>pu-ryu</i>	koh	nga	nye-le	spho
3 Thochu	<i>mo-zyu</i>	mah- <i>to</i>	mun	styak-lo	eú
4 Gyarung	<i>ta-li</i>	<i>tu-mon</i>	<i>ki-ni</i>	nye	uik
		<i>tu-meun</i>			
5 Manyak	<i>mer-da'</i>	mah	nyi- <i>ma</i>	nash- <i>chah</i>	wuh
6 Takpa	rhot	nam- <i>dung</i>	<i>p-lang</i>	nyen- <i>ti</i>	wot
	<i>Fire.</i>	<i>Moon.</i>	<i>Star.</i>	<i>White.</i>	
1 <i>sa-meh</i>	{ <i>z-la-ra</i>	<i>s-kar-ma</i>	<i>d-kar-po</i>		
me	{ <i>da-ra</i>	<i>kar-ma</i>	<i>kar-po</i>		
2 <i>u-mah</i>	<i>s-lik-no</i>	<i>s-gre</i>	<i>phru phru</i>		
3 meh	<i>chha'</i>	<i>ghada</i>	<i>phyokh</i>		
4 <i>ti-mi</i>	<i>tsi-le, chi-le</i>	<i>tsi-ni</i>	<i>ka-prom</i>		
5 me, ma,	<i>lhe'</i>	<i>kra'</i>	<i>da-lu</i>		
6 meh	<i>le'</i>	<i>kar-ma</i>	<i>khe-ru</i>		

1. *The liquid root.**Air.*

The Gyarung *ta-li* is the Tibetan representative of the most common form in the Burman branch,—Toung-thu *ta-li*, Khyeng *hu-li*, Karen *kh-li*, Mru *ra-li*, Burman *le*, &c. It is also Aka *do-ri*. This slender form is Ugro-Turkish.

The Manyak *me-r-da'* is allied; 1st, to the Bhotian sp. *lhak-pa*, Murmi *lha-ba*, Kiranti *hak*; 2d, to the Naga *ra*, *rang* &c., Mishmi *arenga*, Gurung *nang-mro*, Milch. *lan*.

The *u* variety of Bhotian wr. *lung-ma*, Serpa *lung-bo*, is allied to the Takpa *rhot*, Horpa *pu-ryu*, Gurung *m-ro*, Thochu *mo-zyu*; the Takpa *rhot* to the Maram *uh-lut*.

A similar form of the slender variety occurs in the Changlo *ridi*, and Khoibu *nong-lit*. The *-t-*, *-d*, is the *-k* of Bhotian, which Horpa preserves in *lik moon*.

The Lau. fam. has *lom*, *lon*, Mon *b-loei* (also *k-ya* = *k-la*).

*Sky.*

The Bhotian *nam sky* appears to be an archaic variety of the root. In the *u* form it is also archaic Scythic, *nom*, *num*, *nob* Samoiede, *numa*, *nomen* Ugr. (*lumen* Lat.), and, with other vowels, a widely spread name for *sun*, *god*, *prophet*, *king* &c., *nim*, *nem*, *neb*, *nab* &c. The Bhotian *nam* is found in Takpa, *nam-dung*, in combination with a *d* form of *lung*, *nung*. It is not found in any other non-Bhotian vocabulary save Kiranti *nam-cho*, and Kashmiri *nab*. Applied to *day* it also occurs in the Murmi *nam-sin*. As *sun* it is Limbu, Kiranti, and, in the contracted form *na*, Sunwar. Magar has *nam khan*, which is the Bhotian *nam kha*, *sky*. As *sun* the root is Hungarian *nap*, (*nai* Ost).

It is found in some names for *night*, in which it must have had the meaning *sky* (*sky-black*, *sky-dark*). Magar *nam-bik*, Lhopa *nam-mo*, Sunwar *na-do*, Lepcha and Jili *sa-nap*, Singpho *sa-na*.

The Takpa *dung* is found in the Naga *rang-tung*; in the original

form in the Tengsa *a-nung*, Manipuri *nung-thau*, in the Anam *tung-tien* (tien Chinese); and, with the slender vowel, in the Abor *ta-ling* (comp. Gyarung *ta-li air*), Khari *a-ning*. In the Manipuri dialects, the Takpa and Naga *dung, tung*, may be the parent of the *i* forms, *ting-puk, ting-em, ting-am, ting-aram, ka-zing, ka-zi-rang, ka-chi-rang*, but it is more probable that these are variations of the sibilant root. The Turkish and Mongol combine a similar form of the root, *teng, ten*, (immediately related to the Chinese, *tien*) with the Ugro-Turkish *ri air* &c. (*teng-ri* &c.).

The *a* form is still more widely diffused, *b-ra* Mishmi, *ram, rang* in the preceding Manipuri compounds and in others, *tang-ban, thang-wan; rang-tung* Naga, no *kho-rang* Bodo, *ta-liang, sa-rag, sa-rangi* Nipal, *sa-rang* Male.\* The Mon-Anam vocabularies have *p-leng* Chong., *b-loei* Anam (*air* in Mon).

The Bhotian variety has a very narrow range; and as the forms *dung, nung* &c. are found associated with *zing, zi, ling, rang* &c. the probability of similar *u, o*, forms having been current in the Sifan dialects as well as in the Bhotian, with the meaning *air*, is increased.

The Naga-Manipuri *rang, ram*, (with the *ta-, sa-* prefixes of that group) appears to have been carried along the Gangetic basin to the Bodos, Nipalese and Rajmahalis. It corresponds with the Bhotian *lhak air, la moon*.

The Tibetan liquid root for *white* *ru, lu* appears to be the same root. In the Gyarung rom it preserves an archaic *m* final, as in *nam, ram* &c. *sky*. The *Iau lom air* has both the *G. vowel* and final. Comp. also the southern forms for *white*, *lum, dum, lung, lun, long, rong, nung, lang, lug, lak, lih, ri*. The Bhotian *nam sky* must be considered as a variety of *rang, ram, nang, lhak* &c., *air, sky, white* &c., and not of the Chinese *lam blue* (*ante* p. 26). The Takpa *nam-dung sky*, is evidently the same as the Namsang *rang-tung*.

#### *Sun, Day.*

The same root is *sun* in Takpa *p-lang*, and Horpa has also the *a* form, *nga* (Anam *ngai day*). Bhotian and Manyak have the slender form *nyi-ma*, and it is also Gyarung *ki-ni* (Comp. *ta-li air*). With the meaning *day* this form is Bhotian, *nyi-mo, nyin-mo, nyi-m, ni-mo*, Horpa *nye-le, Gyarung nye, Takpa nye-n-ti, N. Ultraindian*, in all the groups,—*si-ni, ta-ni, ta-na, ti-ni, ka-ni, ni, ne* &c.,—Dhimial and Nipal. In the last it retains the original meaning of *sun* also, Murmi *di-ni, sun, day*, Gurung *dhi-ni, sun, di-ni, day*. This form is referable to the Naga *ti-ni*. The Ultraindian sibilant variation current in Singpho, *si-ni*, may be the original of the Kambojan *ti-ngei* (also *ta-ngai*). Anam has *ngai day* from which it may be inferred that in the Kambojan, Chong and Ka *ta-ngai*, the root is *ngai*; comp. the Horpa *nga sun*.

The Takpa *nyen-ti day* appears to be related to the Bhot. *nyin*, Horpa *nye-le* on one side, and to the Limbu *len-dih*, Kiranti *len* on the other. Abor has *longe* and Manipuri *ka-lhan, lan-la*. Kapwi *ri-mik* (*day eye*).

The Kambojan *tingei, tangai*, (also *Ka, Chong*), Mon mun *tata-ngwe, Koreng ting-nai mik* (*day's eye*), Luhuppa *tsing-mik* (*id.*), Tangkal, Naga, *ting-lu, sun*, resemble some of the preceding forms for *sky* and *day*.

\* In some dialects *rang* is very much used. Namsang has *rang-tung sky*, (Muthun *rang-han sun*), *rang-vo light*, *rang-nyak darkness*, *rang-yi day, rang-pan night*, *ka-tha-k-rang god* (*rang-ding Muthun*), *rang-mok thunder*, (Muthun *rang-bin air*), *rang-fom cloud*.

*Light.*

In the Tibetan vocabularies the root occurs rarely with the meaning *light*. In Lhopa *nam* becomes *dam* with this meaning, the Changlo dialect preserving *ngam*. Serpa has the slender form *riup*, Magar *rap*, Gurung *bh-la*, Kiranti *u-la-wa cha-mi*. The Lepcha *aom*, is probably a contraction of *ngam*. The Aka *hang*, Sunwar *hang*, Chepang *angha* appears to be a variation of the sibilant form, *sang*, *shang* &c. Naga has *rangai*, *rang-ro*, Burman *lang*, *len* (*day* in Limbu and Kiranti), Garo *h-lang*, Bodo *sh-rang*, *chu-rang*. Lau has *leng*, Anam *den*, *rang-sang*, Kambojan *p-lo* (comp. *m-ro* of the Gurung *ngang mro sky*, Horpa *pu-ryu*; also *jira-p-ro white Gond*).

Lepcha *a-chur light*, Limbu *thoru*, is a form similar to the Bhotian *hur wind*, and Mongolian *a-hur*, *a-chur*, *uhr air*; but it may be *a-chu-r*, (= *chu-rang Bodo*), *tho-ru*.

The Chinese word for *day* may be the same root *ngit* *Cheo-hu*; *jit*, *ji'*, *git*, *get*, *yat* in other dialects,—*sun* *ngit thioe*, *jit thau*, *yat tau*, (*day's head*). Gyami has *re-thou* (*re* for *ne*, *ni*) *sun*, *re-yai light*. Anam has for *sun* *nhit*, *ngat*, *nhut Chin*.

*Fire.*

The Chinese and Tibeto-Burman root for *fire* is the labial (see 2). But some of the Tibeto-Burman forms of the *l* root are found in Mon-Anam vocabularies for *fire*,—*pi-lung*, *p-lung* Kambojan, *p-leu* Chong, *lia*, *lua* Anam, *ding* Kasia. The antiquity of these vocables is attested by the root occurring in the group with other meanings, *p-leng sky* Chong, *b-loei sky* Anam, *air* Mon; *p-lo light* Kambojan; *lum*, *lom air* Lau. The Kambojan form *lung* is the Bhotian *lung air*; Takpa *dung*, Naga *nung*, *tang*, Anam *tung*, *sky*.

*Moon.*

The prevalent Tibetan name is the liquid root,—the vowel broad in Bhot, and slender in the other dialects. See *White* p. 29. The variations are similar to those which the root has with other meanings. Thus the Bhot. *z-la-ca moon* is similar to the *a* form for *sky sa-rag* &c., the *-k* being preserved in Horpa *s-lik*, *moon*, Bhot. *lhak air*, although lost in *la*, *da moon*.

The Bhot. *a* form is found in Anam. The Lau fam. has the *u* form, common in *white*, *air*, *sky*, *fire* &c.

In the south the broad Bhot. form is common. Aka *pa-la*, Mru *pu-la*, Mijhu *lui*, Maram *lha*, Khoibu, Maring *tang-la*, Burm., Karen, Kami *la*, Newar *mi-la*, Sunwar *la to si*, Chepang *la-me*, Lepcha *la-ve*, Limbu *la-wa*, Kiranti *la di-ma*, Murmi *lha-ni*, Changlo *la-ni*, Lhopa *dau*, Gurung *lau ngi*, Khyeng *kh-lau*.

The *u*, *o*, form is found in Abor *po-lo*, *pa-lo*, Dophla *po-lo*, T. Mishmi *ka-lua*, *lho*, Koreng *cha-rhu*, Toung-thu *lu*, Kami *lho*; Lau fam. *leun*, *lun* *Khamti*, *deun* *Laos*, *duen*, *duen nung* *Siam*, *den* *Ahom*.

The slender form of Gyarung, Manyak and Takpa is found in Mithun *let-nu*, Garo *rang ret*, *Tablung le*, *Khari le-ta*, *Dhimal ta-li*, *Changlo la-ni*, *Ksranti la di-ma*, *Murmi lha-ni*.

*Star.*

The forms for *star* are similar to those for *white*.

2. *The Sibilant Root.**Air.*

The Thochu *mo-zyu air* appears to be merely a variation of the common Tibetan liquid root, which has the similar form *ryu* in Manyak, the change from the liquid to the sibilant occurring with other roots (see *Numerals* 4). The same phonetic change connects many of the Southern words in *s* with those in *l*, *r*, *d*, *t*. But some of them appear to be connected with the Chinese sibilant root used for *star*. For *air* words resembling the Thochu occur in Taying M. zhung, the Manipuri and Nipal groups—M. *ma-su*, *ma-si*, *ma-r-th* (comp. *me-r-dah* Many.)—N. *nam-su*, *pha-se*, *sha-mi*, *sa-mi-t*, *sag-ma-t* &c. (comp. *lhak*, *hak*). It is found also in Milch. *hash* (Abor *asar*).

The Lepcha *sag-ma-t* (*day sak-ni*, *sun sa-chak*) appears to be also found in Limbu *tam-sak-pa sky*, an archaic sibilant form allied to the Limbu *sa-mi-t*. The Kiranti *hak* appears to be referable to the old Bhot. *lhak-pa*, and not to a sibilant variety. The antiquity of forms like *sak* is shown by the Turkish *sok-ba* (Yenis-Turk.). Comp. also Turk. *syod light*, or *fire*, with Bhotian *hod*, Limbu *ot*, Takpa *wot*, *light*.

*Moon.*

The Thochu *chha' moon*, appears to be an archaic form allied to *sak*. The Gyar. *tsi*, *chi*, of *tsi-le*, *chi-le*, is probably a slender variety. Manyak has the broad form in *nash-chah day*, *sun*. In the south the Thochu form and application are found in Manipuri, Kapwi *tha*, Singpho, Jili *si-ta*, Nogaung *yi-ta*, Khari *le-ta*, Tengsa *lu-ta*, Nams. *da*, Dhim. *ta-li*, Sak *that-ta*,\* S. Tang-khul *a-kha*, Kamb. *ke*, Ka *kot*, Chong *kang*, Luhu-ppa *ka-chang*, N. and C. Tangkhul *ka-cheang*, Khoibu and Maring *tang-la*. Champhung has *a-su-bi* (Nicob. *ti-so-ab white*), Mon *ha-tu* (*chu white*), *ka-tok*; Anam *tho bak*.

The Abor variety with the liquid final, *a-sar*, is Scythic in form. Comp. *a-sar*, *a-chur*, *light*, (*supra*.) But it may be *a-sa-r* (= *sa-ra*).

The same root occurs, in several of its varieties, in the words for *sky*, *sun*, *day*, *light* and *fire*.

*Sun, Day.*

The Singpho, Jili, Naga, Garo, Deoria Chutia and Bodo *tsan*, *shan*, *san* &c. *sun*, is similar to *sha*, *sag* &c. As *day* it is Naga, Manipuri, Burman, Garo, Bodo and Kol, Nipal and Tiberkhad (*a-sanga*, *tsing*, *tshan*, *sun* &c.). The Naga *tsing* is reproduced in the Kol *sing*, Magar *sin*. For *day* the Manipuri *gr*. has *nga-sin-lung*, *nga-sun*, *a-sun*, *ma-sung*, *ma-sutum*, *tam-lai*; Anam *song*, *mang song*; *thi*.

The sibilant and slender form of Naga used for *sun*, *day*, current in Kol and Magar as *day*, is also, with a postfix, applied to *fire* in Kol and Gond, *singi-l*, *senge-l*, *singu-l* (comp. *ting-lu sun* Naga.)

The root occurs in similar forms as *white* and *moon* (p. 19).

It is probable that some of these forms are Dravirian. Comp. *white* *te-lla* Telugu (*na-lla black*); *light* *mar-sal*, *ma-skal* Kol, (*mar*, *ma*, *man*, *min* &c. *sky*), *bhok-sha* Tuluva; *sky* *sir-ma* Kol; *fire* *tu* Tuluva, *azha-l* Tamil, *thi*, *ti-ya* Malayalam, *chi-h* Uraon, *chi-che* Malé, *singi-l*, *senge-l* Kol; *moon* *tinga-l*, Tamil, Mal., *tinga-lu* Karn., Tuluva; *sun* *singi*, *sing mar-sal* Kol; *day* *sing*, *sugi* Kol; *star* *chukki* Karriataka, *chukka* Telugu, *suku* Gond.

\* Anam *that tha clear* &c.

The sibilant root is also current for *white* in several of the Ultra-Indo-Gangetic dialects.

### 3. The Labial Root.

#### *Sky.*

The labial root is *sky* in Thochu mah-to, Manyak mah, and Gyarung tu-mon, teu-meun. This vocable distinguishes the Sifan dialects from Bhotian which has nam. Miri has do-mur, (Gyarung in pref. and root), Singpho, Mru, Murmi mu, Burman, Tounghthu mo, Burm. wr. mogh, Nogaung ma-bat, Tengsa phum-ching, Gurung mun. Manipuri has thangwan, tang-ban, Lungke wan and Lau fa.

#### *Light.*

As *light* it is Horpa s-pho, Manyak wuh, Bhotian hod, hwe, eu, Thochu uik, Takpa wot, Naga oitike, Luhuppa hor, Limbu ot. The Manipuri wan, ban, ben, war, Karen k-pa, Lau sa-wang, Anam mang song, Mon ka-ma, do not resemble these forms but some of the preceding ones for *sky*. As they are found in Dravirian as *light*, val-chom, bela-ku, a-veli, bili &c. (Kol mar-sa, mar-sal) and *sky*, ban, van, banu &c., these forms and the similar Gangetic vocable for *sun*, beli Asam, bela Dhimal, ber Male, and *moon* no-kha bir Bodo, appear to be archaic Draviro-Ultra-Indian and not Tibeto-Ultra-Indian. They are Indonesian,—banua Nias, awan Sasak, Sabimba, wang Madura &c.

The forms wot, ot are *fire* in Turkish, *air*, *wind* in Ugrian ot, wot, (in Sanskrit at-ma, Armenian ot &c).

#### *Sun.*

As *sun* it is Thochu mun, (Gyar. mon, Gurung mun *sky*), Sak sa-mi, (sa-meh *fire* Manyak), Naga wang-hi, Anam vang hong, and Lau wan, ban,—the Manipuri forms for *light* and *sky*.

#### *Air.*

As *air* it is Singpho nbong, Naga pong, ma-pung, ma-bung, mong, Newar phai and Sunwar pha-se.

#### *Fire.*

In Chinese the broad form is *wind*, *air*, *fung*, *hong* &c., Gyami sphun.

The Chino-Tibetan word for *fire* is a variety of the same root. Thochu, Takpa meh, Manyak sa-meh, Gyarung ti-mi, Horpa u-mah, (mah *sky* Thochu, Manyak), Bhot. me, Abor, Burman, Naga, Manipuri, and Nipal groups mi, me, Aka u-ma, (Horpa). Manipuri, Kumi mai, Lau fai. Bodo wat, Mon ka-miot, ka-met, ta-mot, ta-mat, (Thochu mah-to *sky*). Chinese ho, fo, fua, hue or hwe, we. The Mon mot, Bodo wat, have the Turkish form, as in the Takpa wot *light*.

The root is also an archaic Scythic vocable for *fire*, *abe*, *apeh*, *ambe* Aino, fi Japan, bi Fin &c.

Some of the more archaic forms of the labial in the preceding applications, as wot, mot, resemble the Tibeto-Ultra-Indian labial root for *white*, phok, phuk, phut &c.

The Chino-Himalaic labial root is found in both the Chinese and Himalaic forms in Dravirian,—*day* paga-lu Telugu, Karn., paga-l Tamil, Malayalam, pagi-l Tuluva, poga-l Kurgi, pokha-l Toda; *sun* paka-l-on Tamil; *light* bokh-sha, Tuluva; *sky* mug-i-lu Karn. anc. The antiquity of

this form and its application to the *sun, day* &c., are shown by the Yuka-hiri *sun* bug-on-she, Caucasian *sun* bok, buk, baak, *day* bigula, ba; Malagasy *sky* ha-baka-baka, Galla *sky* waka, wak, *god* wak-wak.

#### 4. The Guttural Root.

The only examples of the root in the Tibetan vocabularies are the Bhotian khah, Horpa koh *sky*, which is Turkish kuk, gok. It may be connected with the Bodo no-kho-rang (no kha-bir *moon*, Angami kharr *moon*) Kambojan kor, Mon kya; Chinese *light*, kong, kuang &c.; Angami Naga *ti-khra, ti-khe*, Anam khi *air*, An. ki *day*, and with the Lau guttural root for *white* khau, khoung.

#### Affinities of each dialect.

##### 1. Bhotian.

The form lung, *air*, has the vowel of Horpa, Thochu and Takpa; and the same form is found in the Takpa dung, Naga nung *sky*, Kambojan lung *fire, p-lo light* &c.

The form lhak, *air*, is allied to the Manyak da'. Similar forms are preserved applied to the *moon* lik, le', da, la &c. The Naga-Gangetic rag, rang, ra &c., *air*, are referable to this form of the Tibetan root. They appear to have been very early diffused, and indicate a distinct transmission of the root from that of the modern Bhotian. The Bhotian is found in its proper form in a few of the Nipal languages only.

The Bhotian nam, *sky*, is also an archaic form. It is only found in Takpa, and in the south also it has a very narrow range. But the common southern rang is the same root in another form.

Khah, *sky*, Horpa koh, has a still narrower range.

Nyi, *sun*, is also Gyarung and Manyak,—Horpa and Takpa preserving the broad form, nga, lang. It is common in all the southern groups, but the prefixes show that the southern terms were chiefly derived from Sifan.

The forms of the labial root in its application to *fire* occur in the other Tibetan vocabularies also.

##### 2. Horpa.

The Horpa pu-ryu, *air*, is connected with the Thochu and Takpa forms.

Koh, *sky*, has Bhotian, Mon-Anam and Chinese affinities.

Nga, *sun*, has also Mon-Anam representatives (ngai).

Nye-le, *day*, is Gyarung, Takpa and Burman.

Spho, *light*, is remotely connected with the Lau sa-wang, Burman *mo sky*.

U-mah, *fire*, is also Aka.

Like the Thochu and Manyak these vocables show archaic affinities both with the Burma-Gangetic and the Mon-Anam glossaries.

##### 3. Thochu.

The Thochu mo-zyu, *air*, is Manipuri and Nipal.

Mah-to *sky* has the same affinities as the Manyak mah, that is it is Mon-Anam rather than Burma-Gangetic.

Mun, *sun*, is directly connected with the Gyarung mon, meun, *sky*, and, through it, with the similar Ultraindo-Gangetic terms.

Styaklo, *day* is peculiar.

K is Kalombojan and Angami Naga.



Uik, *light*, is an archaic broad form not found in other dialects., but differing little from the Manyak form.

Meh, *fire*, is the common Tibetan form.

This dialect appears from some of these words to be archaic and peculiar like Manyak with which it has some special affinities, and this accords with our previous inferences.

#### 4. Gyarung.

The Gyarung *ta-li*, *air*, distinguished from all the other Tibetan forms, is distinctive of the Burman group in Ultraindia.

*Tu-mon*, *tu-meun*, *sky*, (mun *sun*, Horpa), is Abor, Burmanic, Murmi and Gurung.

*Ki-ni sun*, is Yuma (*ka-ni*) and—with variations of the prefix, such as occur in Gyarung,—common in Ultraindia, some Ultraindian forms being also Nipal.

*Nye*, *day* is Burman, *ne*.

*Ti-mi fire* has the common Ultraindo-Gangetic form of the root.

The Gyarung forms are connected with the Ultraindo-Gangetic generally; but they have a close and decided agreement with those of the Burman branch of Ultraindian.

#### 5. Manyak.

*Me-r-da'*, *air*, appears to be connected with the Naga forms. The labial prefix is a common Naga-Manipuri one, and the compound with *r* also occurs—*ma-r-thi air* Maring. The root *da'* resembles primarily the Bhotian *lhak*, and secondarily the Naga, Manipuri *rang* &c., of *rang-che phan-re*, *thi-rang*, *khi-rang* &c.

*Ma*, *sky* (Thochu *mah-to*) is a link between the Sifan *u* form and the Lau, Lungke, Manipuri and Dravirian *a* forms, *ban*, *wan* &c. Taken with the similar forms for *light* it indicates an archaic connection between the Sifan and Mon-Anam vocabularies, and between the latter and the Dravirian, but no spread of the Manyak form specially.

*Nyi-ma*, *sun*, is Bhotian.

*Nash-chah*, *day*, appears to be an archaic broad form of the root, as in Jili, Changlo and Sunwar.

*Wu'*, *light*, has no close southern affinity.

*Su-me'* has the Thochu and Takpa form of the root.

The Manyak forms appear, on the whole, to be archaic, and not closely connected with those of any of the Ultraindo-Gangetic dialects.

#### 6. Takpa.

The Takpa *rot*, *air*, is found in Maram *n-hlat*.

The *dung* of *nam-dung*, *sky*, is Naga, *rang-tung*, and Anam *tung-tien* (a similar compound).

*P-lang sun* occurs as *day* in Maram *lan-la*, Naga *rang*; as *light* in Naga *rang* Burman *lang* &c.; and as *sky* in Chong *p-leng*.

*Nyen-ni*, *day*, has no special southern affinity, save with Limbu and Kiranti.

*Wot*, *light*, is Naga and Limbu.

*Meh*, *fire*, is the common Tibeto-Burman form.

These words show a close agreement with Naga-Manipuri.

#### *Night.*

The Tibetan names and their southern forms (*night*, *black*, *blue*, *green*,

red) have already been given. 1 tshan, sha, shen, sen; sang, sing, ching, zying, hing, cha &c.; 2 spha or s-pha; 3 di, ti, zi; 4 mor, mon, walo, mula &c., or mo-r, mo-n, wa-lo, mu-la &c.; 5 kwa-ka', kha-khe, ka-ko, ku-k, ko-k.

Other names are also found in the south.

6. kamo Abor, kham Siam.

7. nak, mak, nyak, nya, ya, nyin &c., *black*, sep; or as a qualitative with the word for *sky*, or *air*.

8. bik Magar in nam-bik (p. 27).

9. ma-kung Kumi, kung-keng Burm. This is Chinese, kung chung K-h., hung chung K-t.

*Obs.* Two broad forms of the liquid root appear to have existed in the archaic Himalaic vocabulary, distinguished by the final consonant, the first having -k variable to -ng and t, and the second -m. That the m form was not merely a local variation of ng is rendered probable by the Scythic examples on the one side and the Lau on the other. But the -m like the -k form has produced -ng, -n forms.

A. The -k, (-t) and derivative -ng, -n forms are chiefly applied in the Tibetan vocabularies to *air* and *moon*. The two meanings appear to have been originally distinguished by the prefixes, but the variations in the form of the root are now sufficient to make it a distinct word in each of its uses, and even in most of the vocabularies.

The archaic forms appear to have been lhak, lhuk, lhug, [Dophla has lug in *white*]. Their antiquity is shown by their prevalence in the Scytho-Iranian glossary as *air*, *sky*, *light*, *day* &c. (e. g. a-rak Turk., (*light*) licht, light, lux, leukos, log, lug, lok &c. &c.) The u, o, form is still retained in 4 out of 7 Tibetan dialects for *air*, (Takpa has it also in *sky* and it is the most common vowel in *white*). If a variation of the liquid to the sibilant takes place in Thochu it may also be found in the south, where the archaic Tibetan form for *air* may be partly represented by the s, z forms. The Taying zying, N. Tangkhul su, Naga yak (=sak), Nipal ro, su, sag, so, Milch, hash, Abor sar may thus be remnants of the primary Tibetan current. To it are undoubtedly referable the Mishmi, Abor, Koreng, Toung-thu, Kumi and Lau forms for *moon* lho, rhu, lo, lu, lun, lua, duen &c., and the more common lha, la, lau. The fina k preserved in Horpa is not found in any of the southern forms, and, on the other hand, there is now no example of the u, o, form with this application in Tibet.

In Tibet Takpa has the only example of this form applied to *sky*, but it is common in the south, in various forms similar to the Tibeto-Ultraindian used for *air*, and generally referable to the same primary current with it. These forms are probably contemporaneous with the Blotian nam.

The root does not occur as *fire* in the Tibeto-Ultraindian vocabularies, although the labial root is used for *light*, *fire*, *sky*, and *sun*. But some of Mon-Anam vocabularies have it with this meaning and in the archaic u form. The Anam lua *fire* is identical with the Taying Mishmi lua of *ha-lua moon*, to which the Siamese luen *moon* is allied. The Kambojan *pi-lung fire*, resembles the Lau lun, nung, Abor *po-lo moon*, and the archaic Tibeto-Ultr. *pu-ryu, lung, nong* &c. *air, sky*. This is one of these applications of the common Himalaic roots by which the Mon-Anam branch asserts its archaic separation from the Tibeto-Ultraindian.

The slender forms of the liquid root belong chiefly to the later Sifan

current to the south. The *t-*, *k-* prefixes show that one of its principal sources was Gyarung. These forms are not numerous, and they are chiefly found in the emasculated Irawady group, the connection of which with Gyarung in its late form is distinctly marked by such vocables. Abor and Aka have similar forms, as in many other instances.†

B. The archaic *-m* form of Bhotian, nam *sky*, which has been communicated to Takpa, is the only Tibetan example of the preservation of this variety of the liquid root for *white*, *p-*rom Gyarung, to the *sky* &c., although the Takpa lang *sun*, and the southern ram, rang &c. may be variations of it and not of lhak. The Lau lom, *air*, has the archaic form, as in the *white* of Gyarung, Kumi, Kami and Lepcha. The Bhotian form is found in the Nipal dialects as *sky* and *light*, nam, nap, rap, rhip.

2. The forms nga, (nash) nyi, nyin, nye applied to the *sun* and *day* in most of the Tibeto-Ultraindian vocabularies are evidently archaic. The root appears to be distinct from that which we have been considering, and to be allied to the Chinese.

Horpa has the only Tibetan example of the broad form, nga *sun* (unless the Manyak nash-chah be na-schah). The older southern current preserves an example in Anam ngai, Kambojan group *ta-ngai*.

The most common Ultraindian form for *sun*—which has spread to the Nipal group—appears from the prefix to be Gyarung.

3. The sibilant root presents difficulties from its interchange with the liquid. In Tibet it is not current as *white*, and the only undoubted examples in the present series are the broad form chhah *moon* Thochu, chah in *day* Manyak, and the slender tsi, chi Gyarung in *moon*, *star*.

In the south the root is still current with the primary meaning *white*. Naga cha, che; sang, song, sing, heng; thoh; Tiberkhad chong, Mon chu, Nic. so; Anam se, sach, (*clear* sang, thanh, tot, that tha). *Light* Singpho thoi, Jili thwe, N. and C. Tangkhul she, shea.

The connection between some of these forms and those used in names for *day* &c. is unequivocal, e. g. *day* M. Angami ti-so, (*sky-white*, *night* ti-zi *sky-blush*) Khari a-songa; *white* Nogaung ta-ma-song. Anam clear sang, *light* su sang, su song, *fire* su sang, sang lang, (lang *clear*, *t-rang*, *t-rong white*), *day* song, mang song *sky-white* (also *light*), *sun* vang hong (=mang song). Joboka *white* che (=se Anam); *air* rang-che, Mijhu song-la *day*, *light*, (Anam song), Taying sona *light*. In *sun* of Naga rang-han, san, wang-he, wang-hi, su-hih, Garo ra-san, san (also *day*), Bodo shyan, Mrung *day* tsa-lo, (hur-ro *night*), M. Kumi *day* a-hong-nat, Lungke *day* sun. In several of these forms the primary qualitative meaning of *white*, *bright*, *light*, (*sky-white* or *bright* &c.) is still obvious.

From the rarity of the sibilant element in the Tibetan names—its absence with the primary meaning *white*,—its preservation with that meaning in Dravirian—and the resemblance of the Ultraindo-Gangetic to the Dravirian forms—it seems most probable that the former are Dravirian and not Tibetan. The same difficulty meets us with the labial root, which is both Tibetan and Dravirian. In both cases too, archaic Himalaic forms similar to the Dravirian are preserved by Thochu, which in these, as in many other roots, separates itself from the other Tibetan dialects, and

† In names for *star* some slender forms occur *ki-rek* Mru, *me-rik* Namsang, *le-thi* Muthun, *le-tsi* Joboka &c. (*le*, *le-t-lu*, *le-ta*, *moon*, comp. *tsi-le moon* Gyar.)

connects itself with the Mon-Anam and Dravirian. Its mah *sky* (also Manyak), styak-lo *day*, chha' *moon*, ghada *star* and phyokh *white* are peculiar, and both phyokh and chha' are Mon-Anam\* and Dravirian. It is possible that zyu *air* Thochu is a radical sibilant and not a variation of the liquid of the other dialects. The Thochu sibilant series may be chha' *moon*, styak-lo *day*, zyu *air*, all based on an archaic sibilant for *white* similar to the Draviro-Ultraiidian. Styak resembles the Naga sak, sag, the independence of which from the Tibetan liquid lhak (p. 38) is further supported by the Anam sach. The Anam se, sang, sach, that, tot, su, thanh, thi &c. may be compared with the Drav. te, thi, ti, chi, sha, chha, za, tu &c.

In many of the Ultraindo-Gangetic vocabularies both Dravirian and Tibetan ingredients are found in the same or in closely allied names. Thus in the Garo lam-par *air*, lam is Tibetan and par Drav. Naga has the Tibetan ngi, nyi &c. in *day*, and the Draviro-Anam san, han, hi, su &c. in *sun*. Namsang has the Tibetan rang for *sky* in its compounds, where Mulung has the Draviro-Ultr. wang, vang &c.

4. The labial root is evidently one of the most archaic of the formation in its use for *white*, *light*, *fire*, *sky*, *sun*. The radical vowel appears to have been u, o, and the final cons. k, as in the Thochu *white*.

The Gyarung variation mon *sky* (Thochu mun *sun*) is the form to which several of the southern ones are referable (Abor, Singpho-Burm., Gurung &c.), and the Singpho-Naga pung, mong &c. *air* is the same variety. Lau, Anam and Bodo preserve a final t in *fire* (not *fire* An.= mogh *sky* Burm.).

The forms ban, wan, beli, ber, bir, *sky*, *light*, *sun*, *moon*, appear to be Dravirian. They are chiefly found in the older southern vocbs. Lau, Anam, Mon, Manipuri; Bodo, Dhimal, Male, Asam. The Lau and Anam have close affinities with the Manipuri and Yuma vocbs. (*sky*, *light*, *fire*).

In addition to the forms given above, Pallegois' Siamese Dict. supplies vela *day* identical with the Dhimal bela *sun*, Drav. bela *light*.

The Drav. broad form for *sky* van-am, man-am, ban, benu &c. (van-miu *star*) pon-e, [also vin, min; *fire* ben-ki &c. &c.] is very common in those Ultraindo-Gangetic vocabularies in which Dravirian and archaic Tibetan vocables are found most abundantly. Anam has mang song *day*, *light*, vang hong *sun*, in which the sibilant is *white*, *clear*, *bright* &c., and mang, vang, was probably *sky* or *air* primarily. The Lau fam. has sa-wang *light*; fa, fa-fon, *sky*; fai *fire*; † ban, wan, ta-wan, kang-wan *sun*; ba, wan *day*. In the Manipuri group we find *air* phan-ra Champ; *fire*, mai general (Lau fai); *light* ban, ben, war; *sky* tang-ban, Kapwi, thang-wan Khoibu. In Singpho we have *fire*, wan, Jili ta-wan, (Lau *sun*); in Mijhu Mishmi *fire* mai (Manipurian, Lau; in M. M. ai is a com. final). In the Naga group Mulung and Tablung have generally wang where Namsang, Muthun and Joboka have the Tibetan rang,—sun wang-hi, wang he, (*sky*, *white*), *night* vang-mak, vang-niak, (*sky*, *black*), god kah-wang, *lightning* wang-lip, *thunder* wang-khung, *air* wang-yang, *cloud* wang. Garo has wal, ver *fire* (war *light* Manipuri gr.), lam-par *air* (Dhimal bhir-ma, biri-ma the slender Drav. form); Kumi ku-wang *light*, Khyeng a-wa *light*, Lungke *sky* wan, wyn.

\* The Anam phnok *white* was omitted in p. 29. It is distinct from the modern bak, of Chinese derivation.

† A com. Scythic form, pai, wai, &c.

5. Some of the guttural vocables appear to be the contracted forms of the liquid root with the guttural prefix common as *white* and *star*, *ka-r*, *g-re*, *k-ra'* Tibetan. Khyeng has *khro moon*, i. e. *kh-ro*. The Angami term, may be *kha-r*, Kambojan *ko-r*, Mon and Kyau *k-ya* (for *k-ra*, comp. *k-re*, *k-re star*). Angami *kh-ra air*. Gurung has *pi-ra star*\*, (*kh-la light*, *m-ro air*, *tu-r-kye white*).

The southern guttural roots may be merely variations of the dental, Comp. Anam *thi*, *ki day*, *khi air*. These forms and the allied *ting*, *ti* of Utralandian are Scytho-Chinese and not Bhotian in their affinities. Ch. *tin*, *tien*, *tsang tien* &c. *sky*; *ti ki*, *hi* &c. *air*.

6. It is probable that the several applications of the same root were archaically distinguished to some extent by descriptive words added. In Tibet there are very few such double words. Bhotian and Takpa have compounds for *sky*, Thochu and Manyak for *day*, and Gyarung for *moon*. In the south they are very common. In many cases they are merely two synonyms, but in some one of the words is descriptive. *Day* is frequently merely *sun*; but *sun* is *eye of the sky* or *day*. Anam has *mat t-roi sun*, (*t-roi sky*, *t-ru day*, *mat eye*); *mat nhut sun*, (*nhut day*); *mat t-rang moon*, (*t-rang white*); *tho bak moon* (*su song light*, *song day*, *sang clear*, *tot clear*, *se white*; *thog white* Milch., *su Nic.* &c.; *bak white*). The Maipuri group has several examples of names for the *sun* similar to *mat t-roi*, e. g. *ri-unik*, *tsing-unik*. Mijhu Mishni has *le-mik*. Taying M. has *riang ngiug* (*riang sky*, *riang Mijhu face*). In the ta-ngai of the Kambojan group this is perhaps *eye* and not a mere det. pref. The Chinese *jit thau* &c. is *head of day* (*day h. a'*).

7. The Himalaic vocables that have been communicated to the Vindya branch of Dravirian are the Male *sa-range sky* (Nipal *sa-rangi*), and *jin-pro*, or *jin-pro white*, and the Kol *hoiyo*, *hoiyo air* (Anam *hoi*, *hoi gio*, unless the Anam name be of Kol derivation).

#### External Relations.

1. The Himalaic liquid root used for *white*, *air*, *sky*, *moon*, *star*, is also an important one in this class of names in the Scythic, Indo-European and Caucasian families. It is also found in Dravirian in Scythic forms. Some full and broad forms are preserved more largely in Himalaic and Indo-European than in Scythic, owing probably to the assimilative and slender phonology having made less progress in some of the dialects of the former than in most of the latter.

2. The Himalaic labial root has several distinct forms, 1 *phyok*, *phuok*, *mogh*, *wot*, *mot* &c.,—2 *mun*, *mun*, *mur* &c.,—3 *me*, *mi* &c. Each of these has a wide and archaic range of external affinities, Chinese, Scythic, Caucasian, Indo-European, African. All are found in the Scythic glossary in forms similar to the Himalaic, e. g. *fire bok* Yeniseian, † *wo* Turkish, *a-be* Aino, *bi* Ugrian, Japan; *sun bug-on-she* Yukahiri; *mur ing an-bok*, *on-bok-sy* Yeniseian, *sa-bag* Turkish; *air*, *wind wot* Ugr.; *white bag-da-rin*, *wag-da-rin* Tungusian. Caucasian has *bok*, *buk sun*, *but*, *bot-so*, *moot-z*, *me-z* &c. *moon*, *mu-ch sky*, *air* †. These forms from their distribution and rarity must belong to the most archaic era of the Scythic glossaries. The prevalent forms of the labial are similar to 2 and 3 of the Himalaic,

\* But it may be Drav. *pira* (= *i-pil* Kol).

† Europ. *fok*, *fogu*, *fo*, *a-io* &c. (? Lat. *fo-c-us*).

‡ *Yupour* Turk. *bugu*, *bug*, Armen. *bug*, Tamil *bug-ei*.

and they are rare in comparison with the dental, sibilant and guttural roots. The pure labial for *fire*, mo, me, mi, be, bi &c. is not a late variation of mok, bok &c., but an archaically distinct and very widely distributed variety. The Himalaic forms phuok, mough &c. are immediately connected with the archaic and nearly obsolete Scythic bug, bok; and the u of mun &c. shows that it is probably a local softening of forms like muk, and not a modern derivative from the prevalent Scythic forms of the labial which have a,—bar, wal, mar &c. The Sokpa wun-dur *day* combines a Tibetan with a Mongolian name. The more archaic labio-guttural forms are now found, not in, but around, the central Scythic province, marking the older migrations. In the north they are found in Yukahiri and Yeniseian, in the south in the Himalaic glossary, in the west in Caucasian, Indo-European and African.

3. The Dravido-Ultraindian forms of the labial root, ban, van, wan, mar, bar, val, pal, bar, pel, vel, vil, &c. &c. are connected with the prevalent Scythic and Caucasian forms. The Arian and North Indian vocabularies have similar forms, and the directly western and non-Tibetan relationship of the Dravido-Ultraindian and Dravido-Australian group of forms and applications is as fully evidenced as any archaic glossarial induction can be.

Caucasian, *moon* bar-s, ber-s, ba-z, mi-s, mc-se, Georgian *m-t-ware*, *t-wa-i*, Ossetic *ma-i*; *sun* bar-ch, bar-ke, mal-ch, marra, beri, Georgian *mithi*, *mish-si*, *mik*. The application of the labio-liquid root to *moon* is one of those numerous glossarial links between Dravirian and Caucasian (and even Caucaso-Semitic and African &c.) which, with its non-Tibetan ideologic and phonetic traits, indicate that its course from the Scythic province to India was across the Indus and not across the Himalayas. Dravirian has *pir-ei*, *za-billi*, *bil-pe moon*, identical with the native root for *white*, *light*, *bil*, *vel*, *pel*, *bal*, *bol*, and different from all the Chinese, Tibeto-Ultraindian and Scythic names for *moon*. The western affinities of the labial name are also illustrated by the Indo-European *mona*, *man-k*, *mond*, *maan*, *moon* &c., African *vola-na*, *berra* &c.

Scythic: *air*, *wind*, Ugr. *war-na*, *bar-s-ka*, *mar-d-em*, *mer-d-ish*, *mer-z*, *wire*, *Sam*, *bil*, *mer-gu*, *mar-k*, *mer-se*, *bar-shi*, Korean *par-am*, *par-an*, *Yenis*, *pai*, *poi*, *boi*, *pei* (*Ostiak woi*; *Fin*, *day* *poi-wa*, *pei-wu* &c., *sun* *poi-wa*, *pei-we* &c.); *sun* *Fin* *wal-ky*; *fire* *Fin* *wal-ka*, *Koriak myl*, *mil-he-mil*, *mil-gan*, *mil-gu-pil* &c.; *white* *Fin* *wal-gi*, *bal-gie*, *wel-kes* &c., Ugr. *wai-gan*, *wai-han* &c. Here we find the root with its original meaning *white* preserved in *Fin* and *Ugrian* as in *Dravirian*, although lost in most of the other families, and the special archaic connection between *Ugrian*, *Caucasian* and *Dravirian* illustrated. The Indo-European *weiss*, *wit*, *white* &c. is probably a variety of the same form, *r* passing into *s*, *t*, in the *Scytho-Iranian* phonology. The *Scytho-Caucasic* *bar-s* *wind* Ugr., *moon*, *sun* *Cauc.*, is *light* in *Armenian* *bar-z* (*Sanskrit* *bha-s*), as in *Dravirian*, *mar-sal*, *bera-chi* &c. Indo-European has other forms and applications, e. g. *air* *wad* *Ossetic*, *vata* *Sansk.* *wat-em* *Zend* *bat-as* *Bengali*, *bad* *Hindi* &c. &c.; *vent-us*, *wind*, *wan*, *win* &c. *fire* *fair*, *vuur*, *fire* &c. *Semitic* *air* *a-war*, *a-wiru* &c.

4. The sibilant root is the most common in the Scythic glossaries; and in the Caucasian it is equally important with the labio-liquid. Scythic: *white* *a-sho*, *zag-a*, *chaga*, *sak-rin*, *sai-ran*, *sa*, *siri*, *sir*, *shora*, *sor-ny* &c. &c.; *light* *achik*, *sir-dik* &c.; *fire* *tog*, *tug-ut*, *tat*, *tol*, *tul*, *tuli*, *taz*, *tut*,

Sam, tu, tui, shu, siu, &c.; *sun* shi, chat, chaia, hai, shun, shun-dy, siuna, siung, chotal, tir-ki-tir; *day* shi, chaya, tel, e-dur, doh, tu, chel, shun-du &c.; *moon* Yenis. tui, shui, che-p, cha-ip, Mong. sara, chara, sara-n; *sky* Yenis. eis, osh, es &c.; *air* sal-ki, chil, sel, tol, tyl, &c.

Caucasian: *fire* za, zo, zi, tze, m-za, m-ze, (Ossetic sin, din); *sun* m-se, b-sha, Georgian tuta; *day* dini, deni, den; *sky* m-teo, chi, mi-chi, p-chu, p-sha; *star* za, zoa, su-ri, su-ta, te-ru &c.

In the Indo-European family Scytho-Caucasian forms are common *sun* sur-ya, heli, sol, sonne, zon, sun; *day* dina, den, dan, dies, dit, det, dag, tag, day &c. They are also common in the Semito-African glossaries, e. g. *sun* shom, shem's, tsai &c.

The exceptional Thochu chha' *moon* (Manyak nash-chah *day*) is Scythic, cha-ra Mong., cha-ip Yenis.

The Dravido-Anam forms appear to be partly western from their Caucaso-Scythic and Indo-European affinities, and partly archaic Himalayo-Scythic. Some of the Anam forms. e. g., sach or sak, that, tot, are more Scythic than Dravirian. The Dravirian and the similar Gangeto-Ultraiindian, again, have a close resemblance to Caucasian and Indo-European forms. Some of the Anam and other similar Gangeto-Ultraiindian forms closely resemble Chinese as well as Scythic forms. Probably in this as in other cases, the early Himalaic current—Mon-Anam—brought archaic Scytho-Chinese forms, and blended them in the mixed southern glossaries with the archaic Scytho-Caucasian and Scytho-Iranian of the native Dravirian family.

		Water.	River.	Blood.
1	Bhotian wr. ..	chhu ..	g-tsang-po ..	kh-rag, kh-rang
	” sp. ..	chhu ..	chang-po ..	thak
2	Horpa ..	hra' ..	hra' ..	syé se'
3	Thochu ..	chah ..	cha-bra' ..	sa'
4	Gyarung ..	ti-chi ..	ti-chi ..	ta-shi
5	Manyak ..	dya' ..	dya' ..	sha'
6	Takpa ..	chhi ..	chhi ..	kh-ra

### 1. The sibilant root.

#### Water. Blood.

Chhu; tsang, chang, chah, cha, sha', sa'; chhi, chi, shi, sye, se'.

The Sifan vocable for *blood* is Chinese; and it is also the prevalent Ultraiindo-Gangetic one. Chin. chiue, hiut, hue, he', Gyami sye; Horpa syé, se', Gyarung ta-shi, Thochu sa', Manyak sha'.

The forms current for *water* are also Chinese and Scythic. Chin. chui, shui, sui &c., Scythic su, shui, tui &c.: Gyarung ti-chi, Takpa chhi, Thochu chah.

One of the most prevalent Ultraiindo-Gangetic forms for *blood* adheres to the Chinese form for *water*, shui, chui, sui, tui,—Tiberk shui, Deoria Ch. chui, Bodo thoi, Burm., Yuma swe, thwe, Karen thwi, N. Tanghul a-su, Nogaung a-zu. The Garo kan-chai, Singpho sai, Jili ta-shai, Koreng ta-zai, Yuma sai, chai, Tengsa ai, are modifications of the same form.

As *water* the full Chinese form is preserved in Kumi and Kyau tui, toi, Khyang tui, tue, Bongju, Kuki tue, Maram á-thui, Koreng tu-dui, Song-pu dui, Bodo doi, Khoibu, Maring yui. Nogaung has tsu, Khari a-tsu,

Angami dzu, zu, Tengsa tu, Namsang jo, S. Tangkhul tu, C. T. tun-da, N. T. ai-chu *water*; Khari a-tsu, Nog. tsu-la-tsu, Tengsa tu-la, Joboka swo-kha, Muthun shoa, Namsang joan *river*.

The Changlo and Lepeha vi, Chepang wi are perhaps referable to the full form shui &c.

The Bhotian form for *water*, chhu (Chin. chui), resembles the Naga and Manipuri tsu, zu, tu, chu, &c.

The slender Ultraindo-Gangetic forms *ma-chi* T. Mishmi, *i-si* Aka, *a-si*, *a-he* Abor, *thi* Karen, *ti* Lungke, Muthun, Joboka, Chep., Milch., *si* Mulung, *tei* Mrung, *n-tsin* Singpho, *m-chin* Jili, *i-sing* Manipuri, resemble the Gyarung *chi water*, *shi blood*, Takpa *chhi water*.

This form is also common as applied to *blood*, hi Khoibu, Maring, Newar, hi-ki Bodo, he Namsang, ih Mulung, Tablung, i Abor, the Sak, *thi* Kapwi, Kumi, Kyan, *a-ji* Muthun, Joboka, *a-zyi* Maram, *a-zi* Chumprung, *a-shi* Luhuppa, *u-si* C. Tangkhul, *un-hi* Moz. Angami, *a-thi* S. Tangkhul, Kami, Kumi, Lungke, Khyeng, *ka-thi* Khyeng, *u-si* Sunwar, *chi* Garo, *ma-khi* Limbu.

The Kambojan *chi-m*, Mon *chi-m blood* is the Sifan-Ult:aindian form with the final labial sometimes found in Mon-Anam vocables, when it is absent in Tibetan (comp. *bird chi-m*, *shi-m*, *chi-va*). It is probably connected with the Singpho chin, tsin. The root occurs with the same final or postfix in Aino *ki-m*, and Tungusian *sho-ma* [See also River].

The Ultraindo-Gangetic shui, tui &c. preserves the full Chinese form now lost in Tibet, and probably marks the oldest Tibetan current. The tu, su forms are allied to the Bhotian, and may indicate a second current. The slender Gyarung, Manyak and Takpa form appears to be that in which the last of the great Tibetan currents diffused the root to the southward. It is possible that all the principal variations may have been independently formed in each of the Tibeto-Ultraindian provinces, and that the slender forms may be of equal antiquity with the broad. But the broad forms are common to Chinese, Scythic and Tibeto-Burman, while the slender have a more confined range, similar to that of many other Sifan roots and varieties. It is probable therefore that all the Tibetan forms were originally broad like the Chinese; that the Sifan *chi* was a contraction of the archaic Chino-Tibetan *chui*, or an imported Scythic form; and that the Ultraindo-Gangetic *chi*, *khi*, *thi*, *ti*, &c. in general belong to the Sifan-Ultraindian current, or to the same phonetic era. The Irawadi-Sutlej *chui*, *shui*, *tui* &c. were probably derived from the pure Chinese forms once prevalent in the Sifan province.

#### River.

The first series for *river* has the common Chinese, Scythic and Tibetan root for *water* in a Scythic form. The Scythic forms are *shur*, *shor* Ugrian, *su*, *sug*, [o-suk, *sea*, Kamsch.], *u-sun* &c. Turkish, *u-sun*, *chun* Mongol. The same form is found in Anam *saung*, *sung*, *song*, *som*, Kamb. *tun-li*. Bhotian and Thochu have *a*, Bhot. *g-tsang-pu*, *chang-pu*, *san-pu*, Thochu *cha-bra*. A West Bhot. voc. has *muk-ung*.

The Murmi *syong*, Serp. *hyung*, Lhop. *chhu kyong*, Lepch. *ong-kyong*, (*ong water*), Limbu *wo-hong*, Kiranti *hong-ku*, Gurung *kh Wong*, Luhuppa, Tangkhul and Khoibu *kong*, Koreng *shing-gu* resemble the Anam *sung*, *song*,—but from the Manipuric form *gu* and the Nipal *kyong*, *kh Wong*, *ku*, it is probable that the *k* form is a distinct root; Anam has *kong*.



The source is the Chinese kong K-t., kiang K-h., which would thus appear to have spread from N. Ultrindia to Nipal.

The Pashtu sean, sin, sin-t (whence Sin-d, Hin-d, Ind-us, India) may be Tibetan and not directly Scythic.

The Scytho-Anam sun, sug, sung is a common Indonesian word, sungai, &c.\*

The sibilant, in the common forms for *water*, is also *river* in Gyarung and Takpa. Garo has chi (*ti*-chi Gyarung, *chi* Takpa), Abor *a*-sie, Newar *khu*-si.

The Chinese and Yuma full form for *water* *toi*, *tui* &c., is current as *river* in Bodo doi, Manipurian *dui*-dai, *tui*-koak, *tu*-thau, *tu*-lil, *tu*-rel, *tu*, Linbu *chua* &c.

## 2. The Liquid Root.

hra' Horpa, *dya'* Manyak, *water*, *river*; *kh*-rag, *kh*-rang, *th*-ak (for *th*-yak) Bhotian, *kh*-ra Takpa *blood*.

The root of the old Bhotian *kh*-rag, Takpa *kh*-ra, Sokpa *kho*-ro-*gwe* (? *kho*-rog-*gwe*), *blood*, is found in the Milch. *pu*-lach, Nicobar *ka*-nak, forms which have been derived from a very archaic Tibetan current. The Bengali *rak*-ta, Sindhi *rat*, may be referable to it. The root occurs in the Ugrian *wuo*-rak. The softened current form *th*-ak, Lhopa *th*-yak, Sarpa *th*-ak, have made no progress.

The Anam *tiet blood* resembles the Kambojan slender form for *water*, *tik*, (*tak* &c.). The Anam form may be a purely local variation of Chinese.

As *water* the root is Mon-Anam *dak*, *dat*, *tak*, *tag*, *tik*, *nuk*, in Nankowry *rak* (Nic. *ka*-nak *blood*), Bengali *u*-dak, Newar *lau*, *la*. *River* *tu*-la, *tsu*-la-*tsu* Naga, *ha*-loun *Khyeng*.

The form in *rk*, *dk*, *nk* &c. is *river* in *Ka* *dak*-tani, Kambojan *p*-rek, Burman *m*-rik, *m*-riet, *m*-yit, *Khyeng* *lik*, Mon *water* *dhik*. This slender form is distinguished from the broad *rak*, *dak* &c. *water*, *blood*, and is similar to the *Rakhoing* *re*, *ri*, *Changlo* *ri*, *Tablung* *ri*-ang, *Magar* *di*, *water*. The same slender form without the final *k* is also found in words for *river*, *tun*-li Kambojan, *tu*-lil Manipuri (two roots), *li* *ku* Sunwar &c. Burman has also a broad form *m*-rach. † In the Thochu *cha*-bra' the last element is probably a similar vocable *b*-ra', *m*-ra'; comp. *hra'* Horpa. The Sambawa *b*-rang is the Burman *m*-rach softened. A similar form of the root occurs in *Mikir lang water*, *lang*-pi *river*.

The root occurs with the labial final in the Lau *fam*. *nam water*, *river*, *oil*, *Kasia s*-nam *blood*.

The same root also occurs in Tibeto-Burman names for *oil*, in some cases by itself and in others with the name of the plant from which the oil is obtained. Bhotian has *h*-bru-*mar* in which *bru* or *b*-ru appears to be an archaic form of the liquid root for *water*. Horpa has *nar*-nak, in which the liquid root (*hra'* *water*=*rhak*) has the Nicobar form. Takpa has *kya*-mar, in which *kya* appears to be an example of the guttural root.

\* *Sung*-ai *water's*-father may have been an archaic Tibetan form, *ai father*, Lhopa, Thochu, Ugrian.

† This form is found in the name of the river *Barak* (*ba*-rak). In Marco Polo's time the *Irawady* appears to have been known by the slender form of the same vocable, *Brius* (*b*-rius = *m*-riet, *m*-rik).

The Thochu ching-yu appears to combine a Tibetan name for *water* with the Chinese name for *oil*, *yu*. Gyarung has chin-swi (*chi water*), Man-yak *i-chi-ra*, *i-ti-ra*.

The sp. Bhotian num *oil* appears to preserve the Lau form for *water*. The Lepcha nam *oil* is identical with the Lau form.

### 3. The Guttural Root.

Most of the guttural forms appear to be variations of those in *ch*. The Chinese *kiang*, *kong*, *khui* &c. may be radically the same as the Bhotian *chang*, *tsang*, but it is more probably connected with the Scythic guttural root. A few of the southern words appear to be directly connected with the Chinese.

*River*, *kong* Luhuppa, *kong-pwi* Maring, *kyong*, *khwong*, *hong*, Nipal.  
*River*, *kyi* Toung-thu, *kha* Singpho, *tui-koak* Kapwi, *a-run-kai* Maram, *ta-gha* M. Kumi, *khe* Ahom, *khye* nam Khamti.

Sunwar *liku*, Magar *kho-la*, Newar *khu-si*, Kiranti *hong-ku*.

*Water*, *kwi* Murmi, *kyu* Gurung, *pan-khu* Sunwar; *chi-ka* Garo.

*Blood*, *ma-khi* Limbu, *ka* Murrai, *koh* Gurung.

*hi* Newar, *hyu* Magar, *hau* Kiranti.

*Oil*, *ma-khu* Lhopa, *chi-gu* Murmi, *chi-kang* Newar, *chu-gu* Gurung, *gyo* Sunwar.

### 5. The Labial Root.

Mon has the labial only, *bie*, *pi river*, and it is also current for *water* in Chango *vi*, Chepang *wi* and Lepcha *vi*. In Lepcha *vi* is also *blood*. Kiranti has *awa oil*. For *sea* Mon has *bi*, *bui*, Anam *bien*.

The N. Dravirian vocabularies have a peculiar form of the labial root, *water* *am* Male, *um* Uraon. Kasia has also *um* and for *river* *wah*. These forms are distinct from the Southern, but the Scythic original both of the Toda *pa* and Northern *am*, *um*, is preserved in the Pashtu *aba*, *abu*.

A labial root occurs in several names for *river*. It appears in some to be the root for *father* or *mother*. The Lau *fam*. has *me nam*, *nam me*, *mother of water* (*me mother*); Mikir *lang pi* (*lang water*, *mi mother*, Kasia, *pi*, *pe female* Mikir), Sak *pi-si*. The broad form, generally *father*, is found in Kami *ka-va*, Kumi *ka-wu*, *yang-pang* (=rang-pang), Mru *a-u*, Lung-ke *ti-wa*, Mrung *tei-ba*. Kyau *ti-poe*, Karen has *ti-mo* (*water's mother*) Miri *a-bunge*, Aka *su-bang*, Sunwar *pan-khu*. In some of these forms also the labial only its retained. \*

Other roots for *mother* are also used. Mulung and Tablung have *yang-nu* (*riang water*, *nu mother*), Nams. *jo-an* (*jo water*, *anu mother* Muth.)

The name for the *sea* is sometimes formed in a similar mode, Burman has *peng-le* (*father of water*), Khyeng *pan-le*, *pan-lei*, Tungthu *pin-lai*.

*Obs.* 1. The *ui* form of the aspirate root—the most important of the Ultraindo-Gangetic and found as *water* and *blood* in the older Ultraiudian group, Yuma &c.—is probably an archaic Tibetan form, as it is preserved both in Chinese and Scythic,—*water* Sam. *tui*, *sea* Aino *a-tui*, *a-duit*, *a-zui*.

\* This idiom is Scythic, e. g. Turkish *aga-n-su*, *yai-su*, *ir-mak* (*water* *su* Turk., *e-mak* Chukchi, *father* *aga* Turkish, *ai* Ugrian (Perm), *mother* *ila* Koriak).

The ai variation is also Scythic, but in the Irawadi tongues it appears to be a local variation of ui. The short forms tu, tsu, su, appear to be also local, although similar varieties occur in Scythic vocabularies. A single form imported in one Tibetan vocabulary may have originated all these southern variations of the broad form.

2. The slender southern forms are mostly connected with each other, and derived probably from the Sifan (Gyarung-Takpa) similar form. Its prevalence in the northern Irawadi-Brahmaputran vocabularies, Singpho, Mishmi, Abor, is strongly in favour of its immediate derivation from a southern Sifan dialect; and the extent to which it has been diffused amongst the Irawadi-Yuma vocabularies—especially in its Gyarung application to *blood*—render it probable that it was the vocab. of the latest great Sifan migration, the Gyarung character of which has so often been noted.

3. The forms in n have a much more limited range. But their application to *river*, their close Scythic affinities, and their occurrence in Bhotian and Anam, show the form to have been archaically distinct from chui.

The Dravirian roots for *water*, *river*, *blood*, are distinct, and their line of connection with Scythic roots is also distinct. 1. *water*, niru, nír, nillu, tiru, Brahui *dir*; *blood* se-nnir (*red-water*, se-yya &c. *red*), u-*dir-am*, ke-nniru (ke-*mpu red*, ke=se); Comp. also cho-ga-*nuu*, cho-*ndad red*, cho-ra, cho-re *blood*,—and the Uraon and Male khenso, keso *red*, klens, kesu *blood*. 2. *water*, pun-*al*, vell-*am*; *river* varu-pun-*al*, aru, eru, yer, polo, hole, pa, puzha (=pula). 3. *water* tanni; *river* tude, don-da; *blood* ne-turu, ne-ttar, na-ttur; the root tur, tud &c. is probably a variety of tir, dir.\*

The Kol and Uraon name for *river* adds a 4th root, garra Kol, khar Uraon. It is found in Angami, karr, kerr, and Chepang, ghor.

The Tibeto-Ultraindian liquid root is found in Kol dah, dha *water*.

A slender form of the aspirate che-*ih water* has been received into Uraon, in addition to the nativelabial, unu.

#### *Foreign Relations.*

#### *The Sibilant Root.*

This, as we have seen, is Chinese, *water*, and Scythic, *water*, *river*. The archaic broad form appears to be Chino-Himalaic. A similar form is found in the more primitive Scythic vocbs. Most of the forms for *river* are Scythic in form, the older Himalaic vocb. of Ultraindia preserving the pure Scythic variety sung &c. (Mongolian, Turkish). The sibilant and dental root is the most important in the Scythic vocabularies. In the older it has the labial prefixed. Fin we-si, Ugrian wi-ty, wi-t, vi-s, Japan mi-zu, Aino *river* se-zu, be-z, *water* wa-z-ka, wa-cha.

The root is also found in Ugrian forms in the Caucasian tzun, shin, chi, p-si, p-seh &c. *water*; chi, p-si, chor &c. *river* (Georgian wi-tz); zi, tsha, cha &c. *blood* (also bi). Indo-European has wa-sse-r, wa-t-er, wa-da &c.

#### *The Liquid Root.*

The primary forms are rak, rat, lak, dak, nak, nuk;—n.m. The root

\* In sec. 11 of ch. v. the Ultraindian taru is compared with some of the Dravirian forms. But it is now clear, from the collation of the Tibeto-Ultraindian names, that the root is ru (*ta-ru*).

is rare as *water*. In the great Scythic alliance the only analogous forms in Klaproth's vocabularies are the Yeniseian dok, Fin ta-tze, za-tse, which however appear to be referable to the sibilant root. The Lau form is preserved in the Tungusian word for *sea* nam, lamu. Ugrian has lei, a-ner, a-nyer *river* (Wolga); Mongolian nuhr, nor *sea*; Turkish nehr; and with the prefix ta-, da- both roots are used for *sea* te-ngr Hungarian, to-nyar Tungus., ta-lai Samoiede, da-lai Mong., ta-loi, da-lai, de-nyis Turkish. A common Scythic name for *sea* and *river* also contains the liquid root, mu-ren, mu-ran, mu-ra, mo-ri, mu-di, mu-ny, mu-l.

The Scythic roots also occur in the vocables for *blood, milk* &c.

The root occurs applied to *blood* in lut, leut of the Lau fam., in the Aryan rak-ta, rat, ru-dira. It occurs in similar forms in African and Asonesian vocabularies (*water, river, blood*).

Possibly the Indo-European lac *milk* may be the same root, but it is at present too sporadic to take its place within this circle of affinities.

This root appears to be one of the primary ones of the Tibetan family, and, from its rarity and the nature of its distribution in the Aso-African glossaries, to have been one of the earliest dispersed. It appears to belong to the western or Ugro-Iranian side of the Tibetan affinities and not to the Chinese and eastern Scythic.

#### *The Labial Root.*

This root is common in Scythic, Indo-European, Caucasian, Dravirian, and Semito-African, as *water, river, sea, blood, &c.* But it is doubtful whether in the full forms, in which it is followed by the sibilant, dental, liquid or guttural, it is to be considered as the root or as a prefix. The forms mu, wa, bi &c. are comparatively rare, and, in general, evidently contractions of those which have a second element. Thus both bi and zi *blood* of Caucasian are referable to the Ugrian vi-s &c. *water*, wi-r &c. *blood*, because, from the prevalent forms for *water* and *river*, the vocabulary is clearly Ugrian (e. g. *water* p-si Cauc., wi-tz Georgian). In Ugrian the same contractions take place, e. g. *water* Ugr. wyut, ute, uit, wu, wa; Samoide bi, it, i, bu &c. The Caucasian vocabularies appear in this, as in other cases, to be immediately connected with the archaic Ugrian and not with the Tibeto-Burman. The common roots are subject to a similar range of mutations in every considerable group of vocabularies, as in the Ugrian, East Scythic, Tibeto-Burman, Asonesian, Caucasian and Semito-African.

In the Ugrian branch the labio-liquid is the common vocable for *blood* Fin wuo-rak (the full Tibetan form of the liquid), wa-r, we-ri, ma-le, (leipe); Ugr. wa-r, wi-r, ille, &c., Koriak mu-lu—mu-l.

Sanskrit has va-ri, wa-ri *water*.

#### *The Guttural Root.*

The guttural is Chinese. It is also a distinct Scythic root, kai, gei, ge &c.; kus; gol, kul, kol, gun; Semito-Libyan khar, khor, kol &c.; Dravirian.

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*Earth. Mountain. Stone.*

*Earth.*

Tibetan.

1. sa Bh., k-cha Horpa, se' Gyar., sa' Takpa; zi-p Thochn.

2. *ma-li, m-li* Manyak.

## Southern.

1. sah Lhopa, sa Murmi, Gurung, cha Newar, jha Magar, *n*-tha Maram, ha Namsang, Jobaka, B'ho, Garo, hu-wan Muthun, ya Deoria Ch., han Toung-thu. [*Mountain* 3].

2. *th*-li, *ta*-ri Taying, *a*-li Tenrsa, Nogaung, Khari, *ku*-di Songpu, *ka*-di Koreng, ni Kyau, le-kong M. Kumi, *w*-le Lungko, *m*-re Burm. wr., *m*-ye sp, nhe Gurung.

*ta*-lai Kapwi, *th*-lai Khoibu, *ngu*-lai Champhung, Luhuppa, C. Tangkhul, *k*-lai Muriar, *nu*-lai N. Tang-khul, lai-pak Manipuri, *ka*-lai-hong Kami [nai Chinese, K-t].

noi Anam, nyai Mijhu, bho-noi Dhimal, (nui *mountain*, noi, loi, doi *hill* Lau fam.) [nai Chinese K-t].

lang-nin Khamti.

*a*-lu S. Tangkhul, *ku*-long K. Kumi, (*ka*-lung *stone* M. Kumi), *k*-roung Mru, ruong Anam.

dong, (also *mountain*) Anam, dung *country* Mon.

3. *a*-mong Abor, muang Lau, Siam, phuong, huong Anam, phat Lepcha, lai-pak Manipuri, ba-kha Kiranti, bho-noi Dhimal, ha-wan Muthun, Khamti, phen-din Siam, mien Anam.

4. *ka*-tok Mulung, Tablung; tho Anam [Chinese tho].

5. ki-ju Ang. (the-ju *iron*), su Anam, ki-je M. A. (je *iron*). [*See Mountain* 5].

6. *ta*-ka Jili, nyga Singpho, ba-kha Kiranti, kham Linbu, kho-pi Sunwar, ka Sak, ho kho Sgau Karen, gon kho Pwo K., khon Anam. khe-khel Uroan, ke-kal Malè.

7. dia, dia phan Anam, deiye Kambojan, [Ch. ti, dei, *land* ti, tien].

8. dat Anam, det Kkyeng, te Mon.

o-te, o-t, wa-the Kol.

9. din Siam, Ahom, lang-nin Khamti, phen-din Siam. This is probably a variation of li (2).

*Mountain.*

## Tibetan.

1. ri Bhot., Takpa, ri'-rap Horpa, [*Earth* 2, *Stone* 2].

Chinese lia, ling, Tungusian *a*-lin, *u*-ro, *u*-ra; Mong. *u*-la, *a*-la, Fia *u*-r

2. s-pyà Thochu, *ta*-vet Gyar., *m*-bi Many.

## Southern.

1. [*Earth* 2, *Stone* 2]. *m*-lo-di Dophla, no-di Aka, *ma*-long Koreng, (*ta*-lo *earth*), *ku*-long Maram, *kh*-lung Maring (also *earth*), kho-lon Pwo Karen, rong Lepcha, dung-kang Tiberkhad, dong Anam, rok Lhopa.

*k*-lang, *s*-lang Lung-khe, *h*-lang Kyau, *mu*-ra Doing-nak, mina-ram Nogaung, ra Dhimal.

lai Mrung, loi Laos, doi Ahom, noi Khamti, nui Anam.

*hill*, non, *thi* non, *thi* don Siam, non, non sauh, ngan Anam, *pi*-nom, *pi*-nong Kamb.

2. bom, bum Singpho, *ka*-phung N. and C. Tangkhul, Champhung, Luhuppa, mue K. Kumi, a-pih Khari, min-a-ram Nogaung, moi Kumi, pa-awon *hill* Mon.

3a. [*Earth* 1, sa, ha &c.]. ha-ho Namsang (ha *earth*), ha-hoa Jobaka

cha-ju M. Ang., ha-jo Bodo, ha-chur Garo, a-su Deor. Ch, *ka tsu* Sgau Karen, tok-song Limbu, sa-kha Ang. [Chinese shan].

ma-san Tengsa. [? shan Chinese].

3b. tok-song Limbu [*ka-tok earth* Mulung, Tablung, tu Mon, to-*ke* Male, dong-ar Gond]; son Anam, sa-tong Jili, tong Burman wr., taung sp., shung, tung Mru.

3c. m-lo-di Dophla, no-di Aka, a-di Abor.

ram-thing S. Tangkhul, Khoibu, ching Kapwi, Manipuri, cheing Songpu. dan-da Magar, Sunwar.

4. ta-kung M. Kumi, (le-kong *earth*), ta-ko Sak, kon L. Khyeng, koug Toung-thu, gun Newar, kwon Gurung, gang Murmi, se-kha Angami, kha Mon, do-kang Milch., dung-kang Tiberkhad, go, giong, kon *hill*, Anam, (kon, ku lau *island*), phu-khau Siam, kong jai (*jai high*). Dravirian kono-m, konda, kunnu, gudda. [*Earth* 6].

#### Stone.

##### Tibetan.

1. r-do Bh. wr., do sp., doh Serpa, Lhopa.
2. gho-lo-pi Thochu, go-r Takpa.
3. r-ga-me Horpa, ru-gu Gyar.
4. wo-bi Manyak.

##### Southern.

1. n-tau Maram, Songpu, da Anam, thach Anam.
2. [*Mountain* 3, *Earth* 2]. mp-hla Taying M., laung Mijhu, ku-laung Mrung, i-lung, i-ling Abor, a-long Dophla, n-lung Singpho, ta-long Jili, long Namsang, Muthun, Joboka, a-long Khari, lung-zuk Nog., lung-mango Tengsa, yong Tabl., yangi-yong Mulung, k-yok, k-yauk Burm., lung Kapwi, C. and S. Tangkhul, Kyau, nung Manipuri, nga-lung Champung, Luhuppa, thu-lung Khoibu, lung-gau N. Tangkhul, kh-lung Maring, ta-lo Koreng, ka-lung Kumi, long-tchong K. Kumi, lun, lum Khyeng, Lung-khe, ka-lun Kami, ta-lon Sak, lung loang Toungthu, lu Sgau Karen, lou Garo, Pwo Karen.

long Lepcha, lohong Newar, lung Limbu, lung-ta Kiranti, lhung Magar, phung-lu Sunwar, yuma Gurung, yum-ba Murmi.

3. ti-mo, ta-mo Kambojan, ta-moe Ka, ta-mok, ka-mok Chong, ka-mok, ka-mouk Mon, man Kasia, ta-wha Mru, pakh-na Uraon.

4. ka-tse Ang., ka-che M. A. [shi, shik Ch.].
5. un-thur Dhim., on-thai Bodo.
6. hin Siam, Khamti, Laos. Prob. from hil Asam, and hil from the Bengali shila, Hind. sil.
7. tongi Gond (*mountain* dong-ar).
8. dirri, diri Kol.

The names for *earth*, *stone*, *mountain*, *land* or *country*, and *island*, often involve the same root.

In the Tibeto-Burman vocab. the sibilant root is *earth* and *mountain*; the liquid is *earth*, *mountain* and *stone*; the labial is *mountain*, *earth* and *stone*.

#### 1. The Sibilant Root.

##### *Earth.*

The sibilant root is used for *earth* in all the Tibetan dialects save Many-

ak,—sa, sa, cha, sé, zi. In the South it is rare, occurring in the Naga-Bodo and Nipal groups in forms referable to the Bhotian and Horpa.

#### Mountain.

In the Naga group it also enters into names for *mountain*.

The similar root generally combined with it has u, o,—ho, hoa, ju, jo, chur, song,—in Deoria Ch. and Sgau Karen this last form is itself the name su, tsu. It is the qualitative *great, high* &c.

In the only full vocabulary of any dialect of the Naga group which we possess—Mr. Hodgson's Bodo—ha, with qualitatives postposed, forms numerous other names.

### 2. The Liquid Root.

#### Earth.

1a. The only Tibetan example of this application is the slender Manyak *na-li, m-li*. Burman has the same form modified to *re*, and the same prefix. It occurs with the dental and guttural pref. (Gyarung) in Taying Mishmi and some of the Manipurian dialects. The prefix in the Naga *a-li* may be either from *ma-* or *tu-*.

1b. A broad form *lu, long, dong, dung, roun, ruong*, has this application in S. Tangkhul, K. Kumi, Mru, Anam and Mon (*country*).

1c. The a form is rare—Yuma, Nogaung, Dhimal.

2. The form *lai* of the Manipuri group appears to be connected with the Anam *noi* and Chinese *nai*; and with the *noi, loi, doi* *hill* of the Lau fam. The Mijhu *nyai* preserves the Chinese vowel better than the Anam *noi*; while it is an example of the Anam element found in Mijhu.

#### Mountain.

1a. Bhotian and Takpa have the slender form which Manyak applies to *earth, li*.

1b. In the south the slender form is not used. But the o, u form occurs in Dophla, Lhopa, Lepcha and Tiberkhad on the one side, and in the Manipuri group, Pwo Karen and Anam on the other. That this is an archaic Tibetan variety appears from the forms and their distribution,—*rong, rok* Lhopa, Lepcha; *dong mountain, earth* Anam, *dung mountain* Tiberkhad, *country* Mon, *tong mountain* Jili, Burman. The dental forms, however, may be referable to the qualitative sibilant root.

#### Stone.

The l, r, root occurs with this application in Tibet in the Thochu *gho-lo-pi, Takpa go-r*.

The broad form is more common in the south with this application, than any other. It has all the variations that occur in the names for *mountain* and *earth*—*long, lo, lung, lun, lu, yok* [=lok, rok], *laung*. It is found in the upper Brahmaputra—Irawady band—Dophla to Singpho—in the Naga, Manipuri, Yuma and Karen groups.

Abor has both the broad and slender vowels *lung, ling*; Manipuri has an n form, *nung*; the Burman *k-yauk, k-yok* is referable to a form *k-rauk, k-rok* similar to the Lepcha *rok earth*.

### 3. The Dental Root.

#### Earth.

The Chinese *ti, K-h, tin, ti K-t, tho* Hok-kien, Hai-lam; *tien land,*

K-h.; tin, ti K-t., *lands tin* to K-t., is allied to the Anam tho and dia, and Kambojan deije.

The Anam dat, Khyeng det, Mon te, and the Kol te, the, are of doubtful affinity. Similar forms of the sibil-dental root for *large* &c. occur, e. g. det Bodo. In the Anam dat dai, dai is the qualitative *great*, but dat may have been an older form. The Aryan desa, desh, may possibly be the original of det, dat.

#### *Mountain.*

The dental and sibilant root appears in general to be the qualitative, *large* &c.

#### *Stone.*

The Bhotian do is probably a form similar to the southern dong, and its etymology must share in the doubts that attach to it. The Anam da, thach, Maran u-tau, are also similar forms of the dento-sibilant root for *large*, ta, tai Chinese, dai Anam, tai M. Mishmi, tau Newar, da Garo.

### 4. The Labial Root.

#### *Earth.*

The labial root is not applied to *earth* in Tibetan.

In the south it occurs in the Mon-Anam family, Muthun, Dhimal, Abor, Kiranti—generally in conjunction with another root.

#### *Mountain.*

The Gyarung *ta-vet*, Thochu *s-pya'*, indicate that the full form had a final k, t, and that the Manyak bi is a contraction.

In the south the root is rare and the forms are different from the Tibetan, Singpho having final -m, Manipurian and Nogaung -n.

#### *Stone.*

In Tibet, Manyak alone has the labial, wo.

The Mon-Kambojan group has it in a more archaic form, mok. In distinct forms it is also found in Mru, Kasia and Uraon.

From the rarity and the mode of distribution of the labial, the little connection between several of the forms, and the identity of all with current forms for *great*, *round*, *fat* &c., it is evidently the same root; and it was probably originally used as a qualitative in all cases, as it still is in several of the names. Thus in the Muthun ha-wan it follows ha *earth* (comp. *great* wa Burm., la Singpho, *round* pan Ahom, *fat* kwi-pan Gyarung); lai-pak Manipuri has the common Manipuric root for *earth* lai, followed by a form of the root for *large* which may be Manipuric (no qualitives being included in the vocab.), and is similar to the Lepcha phat *earth*, Gyarung *ta-vet*, Thochu *s-pya'* *mountain*, and to the form of the qualitative in Abor bote, *large*, Tengsa *ta-bok*, Khari *ta-bit* (= *ta-vet* Gyar.) *fat*, Manyak wa' wa' *round* &c., and to the Mon-Kambojan *ta-mok*, *ta-mo*, *stone* (= *ta-bok fat* Khari), Manyak *wo-bi*. The Singpho bom bum, *mountain*, is the Bhotian *large* bom. Singpho itself has phum *fat*, in Bodo phung, which is the Manipuric form for *mountain*, phung. The Kumi mue, moi *mountain*, Dhimal bho-noi *earth* (noi *earth*), Kiranti ba-kha, Abor mong are also similar to current forms of the qualitative—ba *large* Singpho, mon *round* Khanti, pwi *large* Thochu &c.



The Khari *a-pih mountain* has the slender form applied to *large* in Khari itself as in Tengsa, Thochu and Chinese, and to *fat* in the Lau fam.

### 5. *The Guttural Root.*

#### *Earth, Mountain.*

The guttural root is not Tibetan. It is found in that range of the southern vocabularies which has the greater proportion of archaic Himalaic and Indian vocables—Anam, Mon, Yuma, N. Gangetic &c. The most common forms khon, kon, kung, kang &c. best adhere to the primary form—kunu &c. Drav.

#### *Stone.*

The Horpa ga, Thochu gho, Takpa go, Gyarung gu, is not found in the south. It is probably a comparatively late Scythic acquisition. The Dravirian kan, kol, kolla, kallu has distinct Scythic affinities.

The qualitives for *great, round, fat, high, long*—into many of the names for which, the same root enters—appear to be used in the present class of words to some extent. The imperfection of the vocabularies is a bar to our discriminating them from the substantive roots, with some of which they are phonetically identical. The words given for *earth* vary in their meanings from the mere soil, to land generally, to the earth as a whole, to a particular country &c., and it is quite possible that, in the wider applications, the qualitive *great* may have formed part of the name. That it should occur in words for *mountain* is more obvious. The same root occurs in names for earth and stone, and the epithet *large* might readily be applied to rocks as well as mountains in the Tibeto-Himalayan region.

In the names ha-ho, ha-jo, cha-ju, ha-chur, tok-song *mountain* (5), in which ha, cha, is the sibilic aspirate root used for *earth, land*, the second element appears to be, without doubt, a Himalaic qualitive for *great, high, tall* &c. su, thu, tho, sung, jo &c. (p. 30 to 32); and in the Deor. Ch. a-tsu, Sgau Karen ka-tsu, the same qualitive appears to be used as the root.

The Manipuri ching, cheing, thing, are much closer to other forms of the sibilic root for *large* &c. than to any of the undoubted variations of the liquid root for *mountain, earth*. The adjacent Naga has the broad form chung, chong *large*. The Jili, Burman and Mru tong, taung, tung, shung *mountain*, may also be referable to this root. Tong again is so close to dong &c. that it unsettles its relationship also.

In lo-di (3) the slender form of the same qualitive follows the liquid root (*large* thi Gyarung, ti Lepcha &c.)

The labial is clearly the root for *large* &c.

The most common liquid root for *earth, mountain* and *stone* is phonetically identical, in most of its variations, with the liquid root for *great* &c. But as this is necessarily the case whenever the same sound forms different roots, each with several applications, it does not seem possible, with the present small vocabularies, to say if the identity be more than phonetic.

#### *External Relations.*

1 and 3. *Earth*. The sibilic aspirate sa, cha, ha, tha, zi *earth* is probably connected archaically with the Chinese ti, tien, tin, tho.

In the Scythic alliance this root is not common in the sibilant form, but the guttural, which is very prevalent, appears, from the gradations in several of the groups, to be in general a variation of the sibilant. It is not Ugro-Fin in the sibilant form. But Samoiede has the Tibetan form, ja, dscha &c., Aino tui, toi, Japan tsu-tsi, tsi, zi, Korea ta-ti. The Japanese and Korean are probably Chinese. Turkish has sir, ser, zir, yir, &c., Aino siri-kata, Korea chulu, chli, hilyi, Tungusian turu, tor, Turkish tor-pach &c., Mongolian has cha-dsar, ga-syr &c.; Votjak has mu-sem.

Caucasian has sach, sech (Ugrian *hill*, Chinese *earth*) Ossetic; *di-cha*, *mi-tza* (Fin) Georg.; *tzu-la*, *tu-la*, *chu-llah*, (Korea *chu-lu* &c.) cheh, chy, *mu-sa*, *mi-sa*, *bi-su* (Fin *mountain*), Cauc. proper.

Scythic forms are found, as usual, in Indo-European. The pure sibilant occurs in Zend sa, sao. The sibilant-liquid sir, ser, tor, turu &c. is represented by the Celtic tir, dor, duar, Latin terra; and the labio-sibilant of Scythic and Caucasian by the Aryan mri-ti, ma-ti, ma-ts &c. The Slavonic family has sem-lya, sem-ya, sem &c., Zend semo, Sanskrit sima, Persian zam-in (syum-it, shim-ta &c. Kamsch.)

*Stone.* The sibilant root is also applied to *stone* in Chinese shi, shik, chio, sa'; in Scythic—Fin tshi-*vi*, zi-wn (ki-wi), Ugrian is (Permian), Japan, isi, ishi (tsi *earth*), Aino shio-ma, Tungusian za, hy-sha, Yeniseian shish, Mongolian tsholo, tshila-chon, Turkish tshol, tash &c.; in Iranian sil-ex, shi-la, sila &c.; staina, stain, steen, stone &c.; in Caucasian i-*zo*, che-*zo*, hin-*zo*, she-ru, Ossetic dor, durr (Tungusian tor *earth*). Semito-African *ha-dsar*, *ha-sar*, *a-sar*, *gi-sha*.

*Mountain.* The same root is applied to *Mountain* in Fin mo-tshi, mo-zi (*hill me-to*, ma-tas); Ugrian, is Perm (also *stone*), tshoi Perm (syi, mu-syen *earth*); *hill* Wolga u-sach, ech-suit: Samoiede sye, seda, soti &c.; Yeniseian dschii, chai: Turkish syrr, kirr, \* tu, tach, tag &c.; Ugrian (Wogul) *hill* sal, Mongolian *hill* shili.

Semitic has also the dento-liquid of Scythic, tiru, turo, toira; serri Hara-gi, tulu Galla.

Armenian has zori *hill*.

From these examples it appears that the sibilant root is one of the primary Asiatic ones, and that the Tibetan form associates itself with the guttural Chinese, Samoiede, Caucasian and Zend, shi, sa', dscha, sach, sa &c. &c, and not with the liquid Scytho-Iranian, Georgian and Semitic tzula, tur, siri, sila &c. &c.

2. The most important root is the liquid, of which the more archaic broad forms, lung, long, rok &c. are preserved in the South,—Tibetan having lo as an element in Thochu gho-lo-*pi* *stone* only, the form in *earth* and *mountain* being slender. If the root be not the native liquid root for

\* The Turkish syrr, kirr suggests a connection between the sibilant-liquid and the gutturo-liquid root—the latter being common to Scythic, Indo-European, Caucasian, Semitic and Dravirian. Scythic,—gora Fin, kur-uk, ker-as Ugrian, kar, kono-ny Yeniseian (which has also kai, chai, dschii); Indo-Eur.,—gora, kore, gura Slavonic, gor Celtic, giri Sanskrit; Caucasian kur-sh; Semitic gar, gor &c.; Pashtu gar; Drav. kunnu &c.

*great* &c. (pp. 31, 32)—the forms being, to a great extent, identical—it has few external affinities. This circumstance is strongly in favour of the sibilant being the substantive Himalaic root, and the liquid being merely the qualitative *large* &c.

In the Scythic alliance the liquid root appears to occur only in two dialects of Ugrian, *loch Ostiak mountain*, *rok earth Wolga*.

4. The labial is a Scytho-Iranian and Caucasian root for *Earth, Stone, Mountain*, but it does not appear to have any connection with the Tibeto-Burman forms.

*Mountain*. One of the most widely spread varieties for *mountain* is the labio-liquid. Scythic—ware, wuori, Fin panda, wan-da, ponda, uwapun, pel, pal-ta, *hill* mar, moli-ma Ugrian, mari, mony-mon-si, bori, bre Samoiede, buri, *no-buri* Aino, urra, uro Tungusian, ula, ola (*hill* bol-duk, bori) Mong., *mur-on* Turkish, *a-mar hill* Yeniseian. Caucasian mehr, meer, bil, pil, du-bura, bir-d. Indo-European par-ya, par-bat; berg, barg, biarg &c.; mons. Dravirian varei, male, buru, par-ta; Australian *an-birik*, wari-at, mur-do; Indonesian bulu, palu.

A labio-guttural is found in Circassian buch, buko-du (*earth* bak Les-gian, bach Yeniseian, ma, mag, myg Ugrian, tor-pach Turkish) and Malagasy vohi-ts, buhi-tra &c.

*Earth*. Scythic,—ma, mu, mag, my, myg Ugrian, pan, pany, biuy, bach Yenis. Drav. puda-vi, pulo-va. Nilotic—barr Tumali, baro, baru Dan-kali &c.

*Stone*. pai, pui, po, phi, pi, Samoiede, poi-nah Aino; vatu, batu Malagasy; wari-at, walang, wal-bi, bura, maramo, &c. Australian, &c.

#### NAMES OF PARTS OF THE BODY.

	Head.	Hair.	Eye.	Ear.
1 Bhotian	wr. <i>m-go</i>	wr. { <i>s-kra</i> <i>s-pu</i>	mig	r-na
	sp. go	kra, ta	mik	<i>am-cho</i>
2 Horpa	gho	s-pu	mo	nyo
3 Thochu	ka-pat	{ hom-pa grong kachu	kan	nukh
4 Gyarung	ta-ko	{ pu kra	{ <i>tai-myek</i> <i>tam-myek</i>	<i>tir-ne</i>
5 Manyak	wulli	{ mui tsi	mni	na-pi
6 Takpa	gok-ti	{ pu kra	me-long	ne-blap

Mouth.	Tooth.	Hand.	Foot.	Bone.	Skin.
1 kha	so	lag-pa	r-kang-pa	rus-pa	pag-sya
	kha	lango	kango	ru-ko	pag-pa
2 ya	syo	lha	ko	re-ra	g-la
3 dzukh	swé	jipa	ja-ko	ri-pat	ra-pi
4 ti-kke	ti-swe	ta-yak	ta-mi	nya-rhu	ti-dri
5 ye-ba	phwi'	lap-ché	lip-ché	ru-khu	g-ra'
6 kha	wá	la	le-mi	ros-pa	phyekh

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### Head.

1. The guttural root connects Bhotian, Horpa, Gyarung and Takpa. It is Ugrian *og*, *oike*, *ug-ol*, *ug-om*, Yeniseian *koi-go* &c. The Gyarung form is prevalent in Abor, and the Naga-Yuma group. Mishmi has *ma-kau*, *kou*. The Takpa *gok* is found in Manipuri *kok* (Limbu *tha-gek*). It has been communicated—by the Naga fam. apparently—to Male and Uraon, *ku-pe*, *ku-k*; *kho* Namseng, *ta-ko* Tengsa, (*ko hair*), *ta-ko-lak* Nogaung, *m-ku-ra* Mishmi, *kho-ro* Bodo, *kha* Karen, *kau* Chámphung, *kui* Luhuppa, *a-kaó* N. Tangkhul, *o-kaó* S. T., *lu-gu* Khyeng, *a-khu* Sak, *khang* Mithun (*kho hair*), *khang-ra* Joboka (*kho hair*), [*kra hair* Bhotian &c.], *khong* Burm. wr., *ghaung* sp., *nggum* Jili.

It is also applied to the *hair* *ko* Nogaung, *ku* Tengsa, *kho* Mithun, *kwa* Khari, *kin* Deoria Chutia.

2. The Thochu *kapat* is one of the peculiar vocables of this dialect. It appears to be Scytho-Iranian, and to have no Ultraindo-Gangetic representatives.

3. The Manyak *wu-lli* appears to be an example of the Scythic liquid root. The Dhimal *pu-ring* is derived from it, and the Khari *te-lim* has the same slender form. The broad one is found in the Manipuri gr., *a-lu*, *lu*, *Yuma lu*, *lhu*, *a-lu*, *Ahom ru*, and *Magar mi ta-lu*; (but the last may be *talu*, *Drav.*). The broad form appears to be that of the Lau family, in which the common form, *ho*, *huc*, seems to be a softening of the liquid root preserved in *Ahom*. It is also applied to *hair* in that fam. See *Hair*.

This root for *head* is found in the forms *long*, *ron*, *rung*, *ru*, *lom*, attached to the names for the *eye* and *ear* in some dialects. For *eye* Takpa has *me-long* (*eye of head*, *me* is the root for *eye*), *Taying* Mishmi *mo-lom*, *Garó* *mok-ron*. For *ear* *Abor* has *nya-rung*, *no-rung*, *Mishmi* *na-k-ru*.

4. The dental and sibilant root is common in the South for *head* (See *Hair* 3.).

### Hair.

There are two prevalent terms, *pu hair* in general, and *kra* that of the head.

1. The labial is found in all the vocabularies. The form *pu* connects Bhotian, Horpa, Gyarung and Takpa. The Thochu *hom* and Manyak *mui* are exceptional.

The root is Chinese, mo Kwangtung, fah, mau Kwan-hwa, bo &c. in other dialects. It is also Scythic.

The term is rare in the south. Dhirac has the Manyak form mui tu. The Tablung Naga min, Sak ku mi (ku *head*), Garo *ka-man*, Bodo *kho-mon*, are probably of distinct Chinese origin. The Naga min resembles the Chinese word for *face* min, and the Kwan hwa pin (Kwangtung pan) the hair on the temples. Kiranti has moa and Gurung moi.

Applied to the *head* it occurs in Singpho bong, in the compound Burman chhan-bang, s'ha-ben *hair*, in Songpu pi, Maram a-pi, Koreng *cha-pi*, in Sunwar pi-ya and Magar mi talu.

The Kol bu, buho, bohu *head* (ub, up *hair*) may be Tibetan.

2. kra occurs in all the vocabularies save Manyak. The Thochu form, grong, is exceptional. The root, if the guttural, may be Scythic, kar-w Fin, kar-nu Aino. The guttural is an element in words for the *beard* in Yeriseian and Tungusian.

This root also is not common in the south. It occurs in Singpho kara, and with the meaning *head* in Gurung kra, Mishmi m-kura, Bodo khoro, and Manipuri ta-kolak.

From the disposition of Bhotian to merge the prefix in the root, kra is probably a contraction of ka-ra. In the Thochu g-rong the root has a form similar to the Anam long; ph-rum Ahom, ph-om Lau, Siam; lu Khyeng, ta-lu Tung-thu. In some of the Southern forms the first element is not a def. pref., but the guttural root, and the Tibetan k-,g may also be radical, e. g. ta-ko-lak Manip.=s-k-ra Bhot., m-ku-ra Mishmi &c.

3. The Bhotian ta, Manyak tsi and Thochu ka-chu, is also Scythic,—ata, at &c. Fin—and Chinese, Kwangtung, tsz hair of the upper lip, (Manyak tsi), su *beard* (ka-chu Thochu). The Chinese thau, sau, *head*, may be also connected with the Tibeto-Ultraindian dental and sibilant roots for *hair* and *head*.

In the south it is the most common term; but the source of some of the forms appears to have been a broad archaic vocable early introduced by the Mon-Anam family. Kambojan sok, Mon tok, sok, thwot, suet, Karen thu, Kasia shuin. This form is allied to the Thochu chu. Mikir has chu, and Namsang Naga ka-cho (=Thochu ka-chu), Mulung'su, Dhimal tu (mui tu), Taying Mishmi thong, Lepcha a-chom, and Newar song.

The Bhotian ta appears to be related to the common Irawadi form. Mi-jhu cham, Angami tha, Burman chhan, s'ha; lu-sam Khyeng (lu *head*), a-sham Kami, sham Kumi, Mru; Sunwar chang, Magar chham, Limbu tha-gi.

It is also one of the most common southern names for the *head*. Anam mang song; thu. Naga sang, Angami a-tsu, Abor mi-tu-b, mi-tu-k, tu-ku, ka-tau, Toung-thu ka-tu, tu; gu-toh Lhopa, a-thi-ak Lepcha, tha-gek Limbu, tang Kiranti, tho-bo Murmi, chhon Newar.

The Chinese thau, shau, may have been the original of both a and u forms for *head*, *hair*. Anam has the derivative dau *head*.

#### Eye.

1. The labial root is found in all the dialects save Thochu. The slender form connects Bhotian with Gyarung and Manyak. While these slender forms preserve the final guttural, the Horpa mo preserves the vowel of the Chinese form,—muk Kwang-tung, mo Kwan-hwa, mok, ma, ba in other dialects.

The labial root is common in the Scythic vocabularies as applied to the

*Head, Hair, Beard, Face, Mouth, Lip, Teeth, Nose, and Ear*, but it is either in the pure labial form, or with a liquid or sibilant final, r, l, n, s. The guttural occurs in the Ostiak wai-mik *face*. The Japanese me, nana-ko *eye*, are related to the Chino-Tibetan root; *face* is *o-mote*.

2. The Thochukan is the common Chinese gan, Kwang-tung &c. (yen in Kwan-hwa).

The Brahui and Dravirian kha, kan, appears to have been derived from the Thochu form of the Chinese root. The Turkish kar appears to be also connected with the Thochu and Drav. form.

The Manyak mni and Takpa me appear to be referable to the slender form mik, myek; mni is explainable as min from ming, mik. The form min is found in Mru, mi in Mijhu Mishmi, Singpho, Dhimal, Angami, and several Yuma dialects, mi, me, *a-mi*, Karen me, Khyeng mi-u-i; min appears to be an archaic form of the root, as it is applied to *face* in Chinese mien, min, Abor ming-*mo* (*eye a-ming*), and probably in other Tibeto-Ultraindian dialects. The word *face* is not included in the short vocabularies.

The form in t, d, occurs in Lhopa mi-to, mi-do (also mig), Miri *a-mi-da*, N. Tangkhul *a-mi-cha*. As *-to, -do*, is a Lhopa postfix (*gu-toh head, gong-do egg* &c.) the root may here have the contracted form. But mito may be mit vocalised. Kyau has me-et, me-to. The Bhotian form mik, mig is the most common Ultraindo-Gangetic.

The broad Mon-Anam mot, *ka-mot, pa-mot, mat, Kuki mut*, appears to be a distinct importation by that family. It is directly referable to the Chinese mok, muk. The form mak is also found in Champh. *a-mak*, Garo mak-ar, Bodo mag-on, and Kiranti mak. Naga has *te-nok*.

The Déoria Chutia muku-*ti* appears to have the full Chinese muk (*ti* is the Takpa form of the dental postfix).

The Gyarung myek is found in Burman, myek-*chi, myet-si*.

The Abor nyek, Naga *te-nyk, te-nik* appears to be a modification of a similar form. It is found in Lau *pa-ned*, and Kambojan *pe-ne, pa-nek*.

The form met, med, has been received by the Kol dialects.

The common ta of the Lau fam. appears to be from mi-to Lhopa, mi-da Miri, mat-ta Shan. *Face* is na ta, in Namsang than.

The Takpa long (*Head 3*) of me-long, is found in Taying Mishmi molom, ma-lam, Garo mok-ron, mak-ar, (See also *Ear*).

### *Ear.*

1. na Bh. wr., and Manyak, nyo Horpa, ne Gyarung and Takpa, are connected. The Thochu nukh or nu-*kh* is probably a full archaic variety of the same root. If so, it is neither Chinese nor Scythic with the meaning *ear*. Chinese has rh, ro, ngi, li, i; Kamschatkan illa, yel-uth, all-od, il-yud; Caucasian en, in, lai &c.; Indo-European ohr, ur, aur-*is, or-eil*; African ilai, iroi, ulu-*k, uil-ge, na-ru, noa, no-f*.

In some languages the *ear* derives its name from its resemblance to a leaf. In the Takpa ne-*b-lap ear, b-lap* is leaf. As the Tibetan na does not closely resemble the Scythic and Chinese roots for *ear*, it appears to be itself an older application of the same root for leaf. Bh. lo-*ma, Horpa ba-lá*. In Manyak it has n (as in the word for *ear*) nip-*ché*; Sokpa has nai. In the south ne, na, lai occur, as well as other l forms. In the Manipuri group na is the common form, and in some of the dialects the forms for leaf and ear correspond, e. g. Songpu nhui leaf, a-nhu-kon ear; Cham-

phung sing-zu *leaf*, khu-nu *ear*; Kapwi na *leaf*, ka-na *ear*; Angami po-nye *leaf*, a-nye *ear*.

The Chinese yip, ip, ye *leaf* is perhaps a softened form of an archaic root similar to the Tibetan rip, lap &c.

The Barman rwak *leaf* (yuet sp.) and the Kambojan si-lok are archaic forms with final k for p, as in the Thochu nukh *ear*.

The Tibetan root is very common in the south, mostly in the 2 form—Singpho, Naga gr., Manipuri gr., Yuma gr., Karen, Burman, Nipal gr.

The o, u, form of Horpa nyo and Thochu nukh, is found in Kumi kuno, Khyeng hno, ka-nhau, Lepcha a-nyo-r, Sunwar no-pha; while the common Naga form is na, Klari has ti-nhau, Nogaung te-naung and Tengsa te-lanu.

The slender form of Gyarung and Takpa ne, is found in Angami a-nye, Limbu ne-kho.

The Mijhu Mishmi ing, Maram in-kon and Mikir in, an, are peculiar variations of the slender form.

In the Dhimal nha-tong, tong appears to be the Tibeto-Ultranda dental postfix as in Tib. me-tig *flower*, men-to Takpa, Lhopa me-do *eye*, Abor lam-te *road* &c. It occurs with the same form in the Dhimal si-tong *tooth*, and in the Garo lha-tong *tooth*, ho-tong *mouth*.

The root for *ear* is combined with the liquid root (for *head* probably), in some dialects. nio-rong Dophla, nya-rung, no-rung Abor, Lepcha a-nyo-r.

Taying Mi hmi has na-kru and n-kru-na (*m-kura head*), Karen na-ku (*ku head*), Garo na-chil, Songpu a-nhu-kon, Tangkhul a-kha-na, o-kha-na, na-ko-r, Khoibu kha-na, Limbu ne-kho, Magar na-kyep.

Mar'ing has na-mil and Aka na-bar. In the Nipal gr. a labial postfix is frequent, but it appears to be the definitive in some instances,—na-be Kiranti, na-pe Muzmi, nai-pong Newar, na-be Gurung, ne-pha Sunwar (*uc-vo* Lhopa).

If na &c. were originally *leaf*, these compounds were probably "leaf of the head".

The Bodo kho-ma, Gara ma-chor, Kasia s-kor appear to have only the word for *head*, the root for *ear* being dropped. (In the Mon-Anam comp. voc., kor &c. is treated as the root for *ear*, improperly as I now think).

2. am-cho Bh. sp. This term appears to be exceptional in Tibet. Sarpa has a fuller form am-chuk. This appears to be also an ancient Tibetan word for *leaf*. It is found in some of the Naga dialects, pau-chak, hu-chak, phum-yak, (pan &c. is *tree*), Deoria Chutia chia.

The Tengsa and Nogaung am is probably a contraction of the Tibetan am-cha. Robinson gives nam-cho as the Bhotian term, from which it would appear that nam is a form of na, nap, lap &c.

The Lau family has hu, Lung-khe hua, which appear to be modifications of the l, r, n, root for *ear*, *leaf*, the liquid sometimes becoming aspirate in the Lau fam. In the same way the Gurung ku *leaf* is hau in Newar; and the sp. Bhotian hyo-ma appears to be a softening of lo-ma.

#### Mouth.

1. The Bhotian kha, Takpa kha and Gyarung ke are connected. The Horpa ya is probably a softening of kha, and the Manyak ye is referable to it.

The root is Chinese and also Scythic,—kau Kwan-hwa, hau Kwang-tung. It is not common in the South. Songpu aka, Kumi uk-kha, Taying Mishmi ta-khu, ku-kwen, Aka gam [Garo wa gam *tooth*], Bodo khou-ga, Garo ho tong (pha tong *tooth*).

2. The Thochu dzukh is perhaps the same root—as the sibilant and dental found in several of the southern dialects, Naga gr. tun, chu-sim, Manipuri chil, Kuki taung, Garo ko-sak, Kasia *shin*-tur, Maram ma-thu, Murmi, Gurung sung, Sunwar so, Kiranti doh, Chepang *mo*-thong, Shan thsot, Sgau Karen tha kho (kho *head*). With the labial final it is found in Ahom and Khamti sup, sop.

The root is Scythic and Chinese. Fin su, sun, sum, Ugrian shob, shus &c.; Chinese sui, chui &c. See *Tooth*.

3. The most common root in the South is the labial. Abor *na*-pang, *na*-pung, Naga gr. *te*-pang, *ta*-bang, *tu*-pin, amu (Moz. Ang.). Kumi la-baung, Kheng *a*-hnaung, Manipuri gr. *ma*-mun, *cha*-mun, *kha*-mar, *kha*-mor, S. Tangkhul, Khoibu, Maring mur; Lepcha *a*-bong, Limbu mura.

This root appears to be of Mon-Anam origin,—pak Lau gr., meng, rzieng Anam, pan, *kha*-mon-pan Mon; Ka boar, Kambojan mat, Nicobar minoe.

The labial root is Scythic—o-m, ha-mun, a-ma, a-man, Mongol., whence probably the Mon-Anam pan &c.

Singpho has ningup, nggop, Jili nong, N. Tangkhul ania, S. T. onia, Burman nhup, nhok, Pwo Karen no' Sak ang-*si*, Mru najur Mijhu Mishmi njiyut, Magar nger; Chong ra-neng.

The root is Scythic nyan &c. Samoiede.

#### *Tooth.*

1. The Bhotian so and Horpa syo are related. The Thochu and Gyarung is probably the archaic form. The Manyak phwi and Takpa wa' may either be referable to it or to the labial root for *mouth*.

This vocable is the Chino-Scythic root for *mouth*. Chin. sui, ch'hué, chci. Fin su, sun, shum &c. Ugrian shus, tos, shob &c. [Slavonic also has sub]. It is *tooth* in Turkish tish, tusch &c., Samoiede tipe, tip, Ostiak tiwu.

It is not very common in the South, unless it varies to the labial. Mijhu Mishmi tsi, Anam si, Burman swa, thwa, Pwo Karen thwa, Murmi swa, Gurang sak, Magar syak, Changle shia, Lhop sch.

Several of the forms strongly resemble those of the sibilant and dental root for *mouth*, *head*, *hair* (*Hair* 3), and the root is probably ultimately the same. Comp. the Mon-Anam sok *hair*; Abor mi-tuk, Lepcha *a*-thiak *head*; Garo ko-sak, Sunwar so *mouth*; Gurung sak, Magar syak, Bhotian so, *tooth*.

2. Labials are more common. Singpho wa (Takpa wa'), Naga va, pa, *ta*-phu, *ta*-bu, pha, *ta*-pha, Manipuri gr. *a*-va, *a*-ha, *o*-ha, ha, *a*-hu, hui; Garo pha *tong*, Aka phi, Daphla fig, (Manyak phwi), Abor *i*-pang, Siamese fan, Kambojan *tim*-bang; Sgau Karen me, Yuma *a*-pha, ha, *a*-ho, ho-o; Lepcha *a*-pho, Limbu he-bo, Newar wa, Milchanang bung.

The root is identical with the labial one for *mouth*. In Scythic languages also it is used for *tooth*,—Ugrian pane, pin, pon-*k*, pan-*kt*.

3. Mijhu Mishmi lan, la. S. Tangkhul ala-ra, Anam rang.

This exceptional term is probably the liquid root for *head*, which also occurs attached to roots for *ear*, *eye*, &c.

4. The Lau khiau, khui, Jili kong, Kiranti kang, are probably related to the guttural roots for *mouth* or *head*. The Sunwar kryu may be connected with the k-r root for *head*, *hair*.

5. Kapwi nga, Tung-thu *ta*-nga, Maram a-gha, Manipuri ya, Songpu nai, Mon ngeok, ngeat, nget. This vocable is Chinese, nga Kwangtung, ya Kwan-hwa.



*Hand.*

1. The final guttural connects the Bhotian lag, lango and the softened Gyarung yak. The Horpa lha and Takpa la are probably contractions of the Bhotian form. Tha Manyak lap appears to be a distinct archaic form, as a similar form is applied to the *foot*, lip.

This form is the same that is used for *leaf*, and it is also found in southern languages with both meanings. Gurung lap-*ta hand*, Murmi, Newar lap-*te leaf*.

The -k form is an archaic variety of the same root, as it is also current for *leaf*.

The root has both meanings in Scythic also. The Bhotian form resembles lag-ol Ugrian, i-lik Turkish, *hand*.

2. The Thocho jipa is peculiar.

1. The common Tibetan root is prevalent in the South Lhopa la-*pa*, Abor e-lag, Aka lak, Naga dak, chak, yak, Garo jak, chak-reng, Mrung yak.

Singphu leta, Burman lak, let, Mru rut, Lepcha ka-liok.

The Manyak -p form occurs in Mijhu Mishmi yop, and Gurung lap-*ta*.

3. Tengsa ta-khat, Nogaung ta-kha, Khari ta-khet, Manipuri gr. khut, kut, a-khui, kuit, hut, Lungke kut, Kyau ket, Kumi kok, a-ku, ka, Kami a-ku, Sak ta-ku, Khyeng kuth, Bodo a-khai, Dhimal khur, Ahom kha, Chepang kut-*pa*, Magar hut piak, Limbu puk, ta-phe, Kiranti chuku-phema, Changlo godang, Milchanang god, got.

4. Jili ta-phan, Songpu ban, Koreng cha-ben, Maram van, Champung a-pan, Luhuppa pang; Angami a-bi (*foot a-phi, u-phi*), Sunwar g-wi; Lau fam. mu, mo, mi.

Chinese words for *hand* and *foot* are found in some of the Ultrindian vocabularies, that for *hand* being in some applied to the *foot*, and that for *foot* to the *hand*. *Hand* shau Kwan-hwa, h-wang-tung; *Finger* shau, chi, *ib.*; *Foot* tsu Kwan-hwa, tsuk Kwang-tung.

Tayang Mishmi thyoa, a-tua, Anam tay, Ka dei, Mon tway, tai, Kasia k-ti, Karen tshu, Toung-thu su, tsu, Deoria Chutia otun.

Sunwar ta-b-le. (See *Foot*.)

*Foot.*

1. The Bhotian kang, kango, Horpa ko, is the Chinese root keuk, kloh, kha.

2. The Manyak lip-che and Takpa le-mi, have the same liquid root that is also applied to *leaf*, *ear*, *hand*.

3. The Thocho jako appears to be Turkish, ajak.

4. The Gyarung ta-mi, and Takpa mi of le-mi, may be connected with the Chinese po, a *footstep*.

1. Manipuri khong, Singpho la-gong, Jili tak-khyai, N. Tangkhul a-kho, C. T. o-kho, S. T. a-ke, Kapwi ki, Maring ho, Mrng ya-kong, Karen kho, khang, Toung-thu khan, Anam kon, kang, Kami a-kho, Kumi a-kok, a-kauk, Mru khok, Khyeng ka-ko, Dhimal kho koi. Anam chen, kon, kang, Kambojan chong, Mon chang.

2. Garo cha-p-lap (cha-kreng *hand*), Lhopa kang-lep,

The Naga cha, tchya, da, ta-ching, ta-chang, ta-tsung, Khyeng ashi, Doing-nak teng, Sak a-tar, Lau fam. tin, ten, Mon thsihn, Lepcha diang-liok, have the root used for *hand*. The Nogaung ta-tsung *foot* is faithful to the Chinese tsu, tsuk *foot*. The Lau and Mon forms appear to be of Naga derivation.

Mulung and Tablung yah-lan (yak-lan *finger*, yak *hand*).

Garó ja-chok, chap-lap (chak-reng *hand*, le-chak *leaf*).

Taying Mishmi *m-grung*, *m-groh*, Burman khre, khye, Kiranti *u-khuro*.

Mijhu Mishmi *m-p-la*, Abor *a-le*, Singphola-gong.

Murmi *ba-le*, Newar *pa-li*, Gurung *bha-le*, Magar *mi-hil*, Sunwar *kh-we-li*.

The Tibetan lag *hand* is found as *foot* in Aka laga, Lepcha diang-liok, Limbu lang-daphe, Murmi *ba-le*.

4. Angami *a-phi*, *u-phi*, Koreng *cha-pi*.

Maram, Songpu, Luhuppa phai, Champhung *a-phai*, Bodo *ya-pha*, Khoibu wang, Kyau pat.

#### Bone.

The old Bhotian *rus-pa* is found in Takpa *ros-pa* and without the suffix in Magar, Sunwar and Chepang. The current *ru-ko* is found in Manyak *ru-khu* and Manipuri *a-ru-hau*. The Gyarung *syu-rhu* is also Manipuri *sa-ru*. The Lau duk, nuk is probably referable to the Manyak form.

#### NAMES OF FAMILY AND SOCIAL RELATIONS.

The small vocabularies only contain the names for *Man*, *Father* and *Mother*.

*Man* is mi in Bhotian, mi' in Takpa, and *tir-mi* in Gyarung. Horpa has *v-zih*, Thochu ná, and Manyak *chhoh*. It is probable that the Horpa *zih* is masculine and not generic, as it occurs with a masc. power in the Manyak *nga-zi* and Thochu *zyah bull*. Mi is common in the Ultraindo-Gangetic vocabularies.

1st, generically, as in Bhotian and Gyarung, varying in form to bi, wi,— e. g. Newar *mi-jang man*, *mi-sa woman*, Burman *sa-mi girl*, Singpho *si-wi girl*, Garó *mi-chek wife*, Miri *mi-yeng wife*, *mi-mo woman*, Bodo *bi-hi wife*, *bi-ma mother*.

2d, with a feminine application. Kasia *mi mother*, Khamti *me girl* (Dhimai *be-jan boy*), Mishmi *mia woman*, Siam *tua-mi fem. of animals* (*tua-po males*), Mishmi *k-mai woman*, Anam *mai, fem. of birds*, Mikir *a-pe fem. of animals &c.*

The sibilant has a masculine application in the Bodo *bi-shai husband*; Siamese *chai*, Khamti *sau man*; Kumi *tchau man*, Pwo Karen *p-sha man*. The N. Tangkhal *pa-sa* and Kasia *pen-so man* is probably also masc. and not generic. The Manyak *chhoh* is a cognate root, (comp. cho Ostiak).

The Thochu ná is Chinese *nan, nen, man* (vir), *lang husband*. The root occurs with the masc. power in the Bhotian *pa-la father* and it is very common in the Ultraindo-Gangetic vocabularies as a masculine root and servile, both for man and the inferior animals.

The word for *father* is *pha* in Bhotian wr., *pa-la sp.*, *a-pa* in Horpa, Manyak and Takpa, *tu-pe* Gyarung and *ai* in Thochu. That for *mother* is *a-ma* in Bhotian, Horpa, Manyak and Takpa, *to-mo* in Gyarung and *ou* in Thochu. The Bhotian masc. and fem. roots, postfixes and prefixes in *b, p, v* and in *m*, are the same words as those used for *father* and *mother*. In the southern vocabularies they are almost universal with similar meanings and functions, and with various changes of form. In several of the dialects they are now definitives absolute as in Bhotian. The masc. application of *ba, pa, fa, va, bi, be, bo, bu &c.* and the fem. of *ma, mo, mu, mi, me, &c.* is common to most formations in the world, and must

have been coeval with the beginning of human speech. [See App. *Father*, *Mother*]. In some families, however, m is masc., and b &c. fem. [See Dravirian Comp. Voc., App. to chap V].

The Tibetan *mi man* is probably connected with the Scythic masculine root of the same form, generic words for the species being generally cognate with masc. and not with fem. roots. Ugrian has *mis*, *mes*, *maz*, *man* &c. for *husband*, *man*.

The peculiar Thochu words *ai Father*, *ou Mother*, are Scythic,—*ai Father* Ugrian, *aua Mother* Turkish.

The Chinese *nu*, *neu*, *na*, *woman*, *female*, does not appear to occur in the Tibetan vocabularies, but it has been received into several of the Ultratraindian. Gerard however gives *aua* Bhotian.

The Chinese fem. *tsi*, *tsz* (confined to Birds in Kwan-hwa) is found in Horpa *s'-me girl*, and is common in the south.

MASCULINE NAMES.

1. *The Labial Root*

<i>mau</i>	<i>male</i>	Chin. K-h, <i>ib</i> (cattle), K-t.
<i>fu</i>	<i>father</i> , <i>husband</i>	K-t., K-h.
<i>phu</i> , <i>pu</i>	"	" Anam
<i>phua</i>	<i>man</i> (vir), <i>husband</i> ,	Siam.
<i>pho</i> , <i>po</i>	<i>male</i>	Bhot. sp.
<i>ba</i>	"	"
<i>pha</i> , <i>pa</i>	<i>father</i> , <i>male</i>	Bhot. wr.
<i>pa-la</i>	<i>father</i>	Bh. sp.
<i>a-pa</i>	"	Bhot. wr., Horpa, Manyak, Takpa, Lhopa, Murmi, Kapwi, Maram, N. Tangkhul, Muthun, Joboka; Mon.
<i>ta-pe</i>		Gyarung.
<i>po</i> , <i>pho</i>	<i>father</i>	Lau fam.
<i>a-pok</i>	"	Kambojan.
<i>a-po</i>	"	Mozome Angami.
<i>a-pu</i>	"	Songpu, Koreng, Tengsa, Angami.
<i>am-po</i>	"	Kumi.
<i>i-bo</i>	"	Champhung.
<i>bo</i>	"	Khyeng.
<i>bu-bu</i>	"	Abor.
<i>a-bu</i>	"	Newar.
<i>a-bo</i>	"	Lepcha, Gurung.
<i>thong-po</i>	<i>male</i>	Changlo.
<i>sing-pho</i>	<i>man</i>	Sing-pho.
<i>pong</i>	<i>male</i> (an.)	Namsang, wa-pong pat. uncle, Mijhu.
<i>i-pho</i>	<i>brother</i>	"
<i>poh</i>	<i>man</i>	Kumi.
<i>tua-phu</i>	<i>male</i> (an.)	Siam
<i>wa</i>	<i>father</i>	Singpho.
<i>va</i>	"	Jili, Namsang, Dhimal.
<i>pa</i>	"	Sgau Karen, S. Tangkhul, Koibu, Mru, Kasia, Chepang.
<i>u-pa</i>	"	Nogaung.
<i>o-pa</i>	"	C. Tangkhul, Tablung.
<i>o-pah</i>	"	Mulung.

pa-pa	<i>father</i>	Maring.
pha	"	Pwo Karen, Toung-thu.
ka-pha	"	Lung-khe.
pha-ai	"	M. Kumi.
pha-e	"	Burman.
a-phe	"	"
pa-ei	"	Kami
bai	"	Magar.
a-pai	<i>male</i>	Mijhu M. (fowl).
ke-pai	<i>father</i>	" "
u-pha	"	Garó.
a-bha	"	Mrung.
a-va	"	Luhuppa.
na-ba	"	Taying.
a-ba	"	Aka, Sak, Toung-thu, Serpa.
am-ba	"	Limbu.
ba	"	Kiranti; Kyau.
ba-ve	"	Sunwar.
bi-pha	<i>male</i>	( <i>an.</i> ) Garó.
ba-ka	"	Miri.
pha	"	( <i>birds</i> ) Burman.
wa-jan	<i>boy</i>	Dhimal.
mi	<i>man</i>	Kuki.
a-me	"	Taying.

2. *The Liquid Root.*

nan	<i>male</i>	Chin. K-h, K-t.
nen	"	" Shang-hai.
rin	<i>man</i>	" Gyami.
lang	<i>husband</i>	Chin.
nam	<i>male</i>	Anam.
ná	<i>man</i>	Thochu.
pa-la	<i>father</i>	Bhot.
la-sya	<i>son</i>	Singpho ( <i>nya daughter</i> ).
de-la	<i>husband</i>	Namsang.
je-la	<i>male</i>	( <i>an.</i> ) Bodo, ta-la (fowl) Taying.
la-go	"	Changlo (prob. lag-o).
dan-kha	"	( <i>an.</i> ) Dhimal.
ma-ran-mu =		<i>M-yan-ma, M-ya-ma, Ba-r-ma.</i>
p-ra	<i>man</i>	Karen.
ph-lai	<i>male</i>	(elephants) Siam.
t-rai	"	Anam.
k-lang	<i>man</i>	Khyeng.
ka-ren	"	" [= <i>Kh-yeng</i> ].
mi-jang	"	vir, Newar ( <i>mi-sa woman</i> ).
lan	"	Toung-thu.
Ta-lein =		Mon.
leng	<i>husband</i>	Burm.
len-ja	<i>male</i>	Magar.
nga-long	<i>man</i>	Mijhu.
ka-ru	"	Mon., <i>male</i> Taying.
k-ru	"	Mon.

k-loun	<i>man</i>	Karen.
mi-lo	<i>husband</i>	Miri.
nie-lo	"	Daphla.
k-loe	<i>man</i>	Ka
lu	"	Burman, Sak.
m-ru	"	Mru (= N-ru).
mu-ru	"	Sunwar.
ma-ro	"	Lepcha.
ruot	<i>father</i>	Anam
loh	<i>male</i>	(small an.) Kumi.
lu-hi	"	(birds) "
i-rong	"	" Anam,
Si-long =	"	<i>si-long</i>
nguoi	<i>man</i>	Anam
nhon	"	"

dagh-po	<i>husband</i>	Bhot. (Gerard).
jako	"	" (Rob.).
dach	"	Milchanang.
chagha	"	Tiberkhad.
lago	"	Changlo.

3. *The Sibilant Root.*

v-zih	<i>man</i>	Horpa.
chhó	"	Manyak.
chong	"	Anam
k-tchong	<i>man</i>	Mijhu
chai	"	Siam
sau	"	Khamti
tchiau	"	Kumi.
cha	<i>father</i>	Anam
bi-shai	<i>husband</i>	Bodo.
jik-se	"	Garó.
tho	<i>male</i>	(many an.) Burm.
thi	"	" "
thuk	"	(an.) Khamti.
duk	"	" Anam.
p-ting	"	(large an.) Kumi.
pa-sa	<i>man</i>	N. Tangkhul.
pen-so	"	Kasie.
me-sa	"	Silong.
sinh	<i>father</i>	Anam
de	"	"

4. *The Guttural Root.*

kung	<i>male</i>	Chinese K-h., <i>ib.</i> (an) K-t.
kang	"	(inanimate) "
hung	"	(birds) K-h.
hiung	"	" K-t.
yiong	"	" Shang-hai.

kéc'n    masc. principle in nature Ch.  
khon    vir        Siam

{ a-gu    male, father, Bhot. (Gerard).  
   ja-ko    husband Bhot.  
   cha-ga    "        Tiberkhad.  
   ji-k-se    "        Garo (mi-chek wife, chek=jik generic).  
   u-gu    paternal uncle Bhot. (Gerard).  
   a-ku    "        Tiberkh., Milch.  
   kea    father "        Tiberkh.  
   a-keo    male        Milch.

## FEMININE NAMES.

1. *The Lalia Root.*

pan    female Chinese K-t.  
 pin    " (an.) K-h.  
 mu    " (an.)  
 fu jin    woman. Chin.

ma, mo, m    fem. part. and pref. Bhot.  
 a-ma    mother Bhot., Herp., Many., Takp., Dhim., Gare, Gurung.  
 ta-mo    "        Gyaring.  
 mo-b-jye    wife Bhot.

da-mo    fem. Changlo (Gyar.).  
 moi-bo    wife " "  
 vo        "        Anam  
 mi-mo    woman Miri.  
 ma        fem. (an.) Burm.  
 bi-ma    "        (an.) Garo.  
       "        mother Bodo.  
 ma-pani    fem. (an.) Dhim.  
 phang    "        (elephants) Siam.  
 ban        wife        Siam  
 don bu    woman    Anam  
 a-mi        mother    Burm.  
 mi        "        Kasia.  
 me        "        Lau fam. Anam  
 mia        wife        Siam  
 tua-mia    fem. (an.) Siam.  
 mia        woman    Taying M.  
 be-jan    girl        Dhim.  
 a-pe        fem. (an.) Mikir.  
 a-mi-so    wife.        "  
 na-bi        elder sister Taying (na-fo elder brother).  
 si-wi        girl        Singpho.  
 mau        mother    Anam  
 k-mai    fem., woman, Mijhu.  
 mai        fem. (birds) Anam.  
 mai-ma    fem.        Burm.  
 a-pu        mother    Tengsa.

na-lu	<i>mother</i>	Ator.
na-ma	"	Taying
		2. <i>The Liquid Root.</i>
nü	<i>fem.</i>	Chin. K-t. K-h.
neu	"	" "
na	"	K-h.
nu	<i>woman</i>	Anam

a-ne	<i>mother</i>	Bhot. (Gerard).
a-ne	"	Aka.
a-nu	"	Naga, Manpuri gr.
o-nu	"	" "
nu-nu	"	Mijhu "
noa	"	Manipuri.
num-sya	"	Singpho.
num-sa	<i>fem.</i>	" "
nu	"	(an.) " , Kumi.
nang	<i>woman</i>	Siam
na-na	<i>mother</i>	Miri.
no-ka	<i>fem.</i>	(an.) "
mi-eng	<i>wife, girl</i>	" "
ing	<i>fem.</i>	Siam.
ing-yong	<i>mother</i>	Namsang.
n-yong	<i>fem.</i>	(an.) "
ing-yah	<i>sister</i>	" "

3. *The Sibilant Root.*

tsi	<i>wife</i>	Chin. K-t.
tsai	"	" K-h.
tsz	<i>fem.</i>	(birds) K-t., K-h.
s'-me	<i>girl</i>	Horpa.
us-res	<i>woman</i>	Gyarung.
am-cho	<i>woman</i>	Bhot. (cho' man Many).
a-zhim	<i>sister</i>	elder Bhot.
sing-mo	"	younger "
jo	<i>fem.</i>	(an.) Dhim.
jong	<i>mother</i>	Mikir.
hi-n-jo	<i>woman</i>	Bodo.
mi-chek	<i>wife</i>	Garo (jik-se husb.).
the	"	Anam.
ta-si	<i>fem.</i>	(an.) Taying.
si-wi	<i>girl</i>	Singpho (i si-wi, comp. sing-pho.)
bi-hi	<i>wife</i>	Bodo.
hi-n-jo	<i>woman</i>	" "
nya	<i>daughter</i>	Singpho.
sa-mi	<i>girl</i>	Burman (s'-mé Horpa).
mi-sa	<i>woman</i>	Newar.

4. *The Guttural Root.*

kwan	Chin. K-t.	(fem. principle in nature.
ka	<i>fem.</i>	def., Kasia.
gai	<i>woman</i>	Anam.

kai	<i>fem.</i>	(an.) ,,	
			5. <i>Vocalic.</i>
yang	Chin.	K-t. <i>fem.</i>	principle in nature.
ying	<i>fem.</i>		Khamti.
mi-yeng	<i>wife</i>		Miri.
m-eng	"		Abor.
ing-yong	<i>mother</i>		Namsang.
ing	<i>fem.</i>		Siam.

#### NAMES OF DOMESTIC AND OF SOME WILD ANIMALS.

The names of the more familiar quadrupeds, domestic and wild, are more or less connected in all groups of language that retain a primitive and homogeneous character. The same root has been applied to several of these quadrupeds as a generic name, the species being denoted by a definitive, or a qualitative, or by the addition of a second substantive name. In the progress of dialectic separation and change, the same pure root, or the same compound, has come to be applied to different animals in the various dialects; vocables originally identical have acquired distinct forms and applications by phonetic changes in one or more of their elements, principal or accessory, or by throwing off the latter; and, on the other hand, vocables originally dissimilar have acquired a close resemblance. Roots primarily denoting only the sex or age have acquired a substantive character and become restricted in particular forms, to certain animals. Thus words that first signified man, woman, child, were applied to mark the sex and age of the lower animals; and in some cases, by the loss of the substantive names which accompanied them and by the acquisition of peculiar phonetic forms, they eventually superseded these names, so that the same root may, in the same dialect, mean not only man and the male of a lower species, but the species itself, male and female. By the loss of the specific name and the permanence of the descriptive, the same animal may acquire distinct names not only for male and female, and for the young of different stages, but for other varieties in breeds or individuals,—as those of size, form and colour. Thus while a single root sometimes continues to be applied—joined with descriptive words or slightly varied phonetically—to animals of different species, the varieties of the same species, and even diversities in the same breed, may be known by distinct roots. Secondary forms and applications have been communicated by one dialect to others, so that while, on the whole, the general glossary of each group has, by the lapse of time, gained in richness and individuality, while preserving the primitive stock of roots, each single vocabulary has become less homogeneous and systematic in its nomenclature, and has even lost some of the archaic roots or compounds. To ascertain the radical stock of names and the primitive method of applying them we must consider the glossary in the aggregate. To ascertain the relations of particular dialects we must consider each departure from the archaic system as a substantive historical fact. [See chap. V. sec. 11, *Names of Parts of the Body*, p. 208, *Names of Domesticated Animals* p. 240].

Dialectic relations can only be fully understood by comparing words in groups, comprising all those that are etymologically related. But to form such groups with accuracy demands the perfection of a science which can hardly be said to have yet taken a definite shape. We must be in



complete possession of all the dialects of the family, and we must have compared all their vocables not only with each other but with those of the cognate families,—that is with all other human languages. The history of every spoken tongue ascends to the very beginning of speech, or to the origin of mankind. It contains roots that have come down through numerous channels and with various changes of form and meaning. Each root has also, through all ethnic time, flowed in hundreds of contemporaneous currents, multiplying by self division, diverging far apart, approaching, touching or coalescing, and again divaricating. The genealogy of every language is hence exceedingly complicated, and will remain a subject of research for centuries to come. We must make a beginning with imperfect vocabularies, and such partial groups as they enable us to determine. The results which the first labourers in the field may arrive at will appear insignificant as the science advances; but they have this encouragement that every well considered comparison, however narrow, leads to a positive historical result. What is learned is a substantial and stable gain. It will afterwards take its place as only one among many evidences of the same ethnic movement or influence, or internal linguistic change; and connections that now appear isolated or partial will be explained as the results of ethnic alliances and events that were not at first suspected, but which have left other records in the vocabulary. The earlier generalisations will be corrected when they have been too narrow or too wide, but the substantial affinities brought to light will always remain among the facts on which the science, in all its successive developments, will be based.

With the small samples which we possess of most of the Himalaic languages, we must be satisfied with the examination of a few groups of words, and each of these exceedingly defective. Not to complicate the enquiry, it will be confined to ascertaining 1st, the ramifications of each root in all the vocabularies; 2d, the vocables by which each object is at present known in the different vocabularies, and the connections thereby indicated; 3d, the affinities of each vocabulary singly. The relations indicated under the first head are to a great extent archaic: they must have been formed during a great lapse of time; and many of them must belong to the earliest phase of human speech. The history indicated by these affinities is complex and must embrace many and great ethnic changes and movements. The affinities examined under the 2d head will throw some light on the later ethnic movements; and those brought together under the 3d will help to show to what extent each dialect was affected by those movements, and what its modern and its later pre-historical relations to the other dialects have been.

As the Chinese is, on the whole, more faithful to the primary system of nomenclature than other languages, and the Himalaic family takes the next place in the order of glossarial disorganisation and concretion, it will be useful to take a few illustrations from Chinese of the use of generic names. The root ngau—dialectically varied to gu on the guttural side and to niu on the liquid—is applied, with specific qualificatives, to the *Con*, wong ngau (*yellow ngau*), *Buffaloe shui ngau* (*water ngau*), *Yak man ngau*, *Zebu fu g ngau*, and *Rhinoceros sai ngau*. The root yeung (*yang &c.*) is applied to the *Sheep min yeung*, *Goat shan yeung* (*mountain yeung*) or *tsu* (*tsau &c.*) *yeung*, *Chamois ling yeung*, and *Antelope gutturosa wong yeung* (*yellow yeung*).

The root *shu* is applied to different kinds of *Rats* *lo shu*, *chuk shu*, *tsong-shu*, *ku shu* &c., and *Mice* *shik shu*, *tso shu* &c., to the *Squirrel* *sung shu* or *wong shu*, to the *Weasel* *yau shu*, to the *Mole* *tin shu* or *an shu*, to the *Marmot* *put shu*, and to the *Bat* *fi shu*.

The following appear to be the roots now current in the Tibetan vocabularies in the names for the *Cat*, *Dog*, *Hog*, *Goat*, *Monkey*, *Cow*, *Buffaloe*, *Elephant*, *Horse*, *Tiger* and *Monkey*, the names of other quadrupeds not being contained in the short Sifan lists.

I. (a.) The labial with a slender vowel, *mi*, *bi* or *byi*, *pi*, *me'*, is an element in the names for the *Cat* in Bhotian (Sokpa and Takpa), for the *Cow* in Horpa and Manyak, and for the *Buffaloe* in Manyak. The Horpa *me'* suggests that it may, in an older form, have had a guttural final. The Thochu *pi* *Hog* may be a slender Sifan variation of the prevalent *phag*, *pha* &c, like *ri road* for the Bhotian *lam*, *bri snake* for the Bhotian *brul* &c (see Sec. 2), so that it cannot be considered as a fourth application of the archaic slender root.

(b.) The aspirate labial with the *a* vowel is applied to the *Hog*. It preserves a guttural final in Bhotian, but has lost it in Horpa, Manyak and Takpa,—*phag*, *phak*, *pha*, *vah*, *wah*.

(c.) Another broad form is applied to the *Cow*—*ba*, *pha*, *wo*—in Bhotian, Takpa and Manyak; and to the *Horse*—*bo*—in Gyarung and Manyak.

(a.) *Cat*. *byi-la* Bhotian wr., *si-mi* Bhotian sp., *Sok-pa*, *syi-m-bu* Takpa (-*bu*, the Bhotian masc. postfix as in the Bhot. pre-*bu* *monkey*). Comp. *bi-thi rat* Bhot., *pi-chru-ba* Changlo.

*Cow*. *ngau-mé* Horpa, *wo-mi* Manyak. *Hog*, *pi* Thochu.

*Buffaloe*. *ding-mi* Manyak. The word is not given in the other Sifan vocabularies.

[*Tiger*. *le-phe* Manyak (Chinese *lo-fa* &c.).]

(b.) *Hog*. *phag* Bhot. wr., *phak* Bh. sp.; Horpa *vah*, Manyak *wah*, Takpa *pha*.

(c.) *Cow*. *ba* Bh. wr., *ba'* Takpa. *pha-chuk* Bh. sp., *wo-mi* Manyak.

*Horse*. *bo-ro'* Gyarung, Manyak, *b-ro'* Manyak.

Chinese has *mi* *stag*, *fi* *colt*, *ma* *horse*.

II. The liquid root occurs in names for the *Cat*, *Goat*, *Cow*, *Buffaloe*, *Elephant* and *Horse*.

*Cat*. *byi-la* Bh. wr., *chu-la* Horpa, *lo-chi* Thochu *ta-rhu* Gyarung.

*Goat*. *ra* Bh., Takpa.

*Cow*. *sa-lo* Sok-pa, *lang dang* Bh. (Rob.), *lang-gu* *bull* (Pitti), *pa-lang* *cow* (*ib*).

*Buffaloe*. *ding-mi* Manyak.

*Elephant*. *g-lang-chen* Bh. wr., *lam-bo-che* Bh. sp., *lha-bo-che* Sokpa, *la-mo-che* Horpa, *lang-chen* Gyarung, Takpa. The second element in the compound is Chinese. The native term *lang* is obviously that used for the *Cow* and *Buffaloe*, the Chinese name being added as the specific one or qualitative, or conversely.

*Horse*. *rhi*, *ryi* Horpa, *ma-ri* Sokpa, *ro'* Thochu, *bo-ro'* Gyarung, Manyak, *b-ro'* Manyak. [Chinese has *lu*, *lo* *ass*, *lau* *hu*, *lo fu* *tiger*, *lau shu*, *lo shu* *rat*, *luk*, *lu* *deer*, *lok*, *loh* *to camel*].

· III. The sibilant and dental root is applied to the *Cat* si, svi, chi, chu, ch'a, *Goat* chhe, tsah, so, cha, chang, *Cow* chuk, *Bull* zyah, zi, *Dog* sha, ts', *Horse* ta', *Tiger* tak, te.

A. The sibilant.

· *Cat*. si-mi Bh. sp., (syi-m-bu Takpa), chu-la' Horpa, lo-chi Thochu, ma-cheu Manyak.

· *Goat*. chang-ra Bhot., chhe Horpa, tsah Thochu and Manyak, ku-so Gyarung, cha-pu, chya-pu (the goat of "the northern region of the sub-Himalayas" Hodgson, J. B. A. S. XVI., 1020).

· *Cow*. pha chuk Bh. sp.

· *Bull*. zyah Thochu, nga-zi Manyak.

· *Dog*. k-sha' Manyak. This appears to be a variation of the dental found in Horpa ka-ta'.

B. The dental.

· *Horse*. r-ta Bh. wr., ta sp., te' Takpa.

· *Dog*. ka-ta' Horpa, k-sha' Manyak.

· *Tiger*. s-tag Bh. wr., tak sp., s-tak Horpa, tée Takpa.

· IV. The guttural and nasal roots are applied to the *Dog*, *Hog*, *Tiger* and *Cow*, and appear to be all Chinese in their immediate affinities.

· *Dog*. khyi Bh. wr., uyo sp., khwa Thochu, khi Gyarung, Takpa, (Chinese kien, hun, kau, keo, Fin koi-ra &c., Mongol nho-khwe, na-koi &c.

· *Hog*. ki Gyarung [? chi, ti, tio, chu, tu, du Chinese].

· *Tiger*. k'ho Thochu, kong Gyarung, [khu Gyami, hu Chinese].

· *Cow*. gwa Thochu [? Chinese ngau, gu].

· *Cow*. ngau-mé Horpa, nye-nye Gyarung. Chinese K-t. ngau, K-h. niu Hok-kien gu; *cow* hwang niu, wong ngau, vong ngui, (hwang, wong, vong, yellow) &c.; *bull* mau niu, niu ku, ngau ku, ngau kung &c. (mau, ku, kung, male); *buffaloe* (water-cow) shui niu, shui ngau.

· The occurrence of the same root as an element in different names, and its change of position from initial to final, is, in several cases, explained by its possessing, or having primarily possessed, a sexual power. The labial retains its sexual power in Tibetan. The sibilant is masculine in its application to the *Bull* in Thochu and Manyak. The liquid does not appear to be current as a masculine root in Tibet, but it is preserved in Bhotian pa-la *Father*, and in the southern languages of the family it is common in the Tibetan forms lang, ra, ro, ri &c., as a masc. substantive or servile. On comparing the Tibetan names of animals in which it occurs with the southern ones, it is clear that it must originally have been a masc. root in Tibetan. Hence byi-la, chu-la, lo-chi *cat* and chang-ru *goat*, are radically masc.; while si-mi, ma-cheu *cat*, wo-mi *cow*, are radically fem. In Tibetan the sex qualitative may either precede or follow the substantive word. In the course of that glossarial metamorphosis to which language is subject, the sex name has, in several instances, become a substantive one, Ba, wo and lang are now *Cow*, ra *Goat*, rhu *Cat*, phag *Hog*, and ding *Buffaloe*. With the light thus thrown on the Tibetan names we can proceed with more certainty to examine their history and relations.

I. The labial is one of the primary zoological roots. It is also prima-

ry in Scythic, and with a similar range of application. *Cat*, Turkish *mi-shik*, *pi-shik*, *ma-chi* &c., *Ostiak mi-sak*, *Mongol mi-choi*, *mi-i*. That this was a very archaic application—perhaps the earliest, unless the *mouse* was the first of the house quadrupeds (*pipi*, *mush*, *mus*, *pisse* &c. &c.)—is shown by the prevalence of the same root, and of the same combinations, in other families, including Semito-African *bi-s*, *mus* &c., Caucasian and Pashtu *pish-ik*, and Dravirian *pi-shi* &c. (See chap. V. sec. 11, *CAT*). Similar vocables for the *mouse* are as widely spread; and those for the *dog*, *goat*, *sheep* and *cow* are the same (e. g. *cow* Ugrian *mis-ye*, *mes*, *mus*, *wys* &c.). It is much more probable that the root was extended from the smaller to the larger animals than the reverse. The order was probably from the mouse and rat to the cat, and then to the dog, goat, sheep, hog, cow, and buffalo, as they were domesticated. The mouse and rat would be the first quadrupeds to become inmates of human dwellings, and they would be the baits that first attracted the cat and the dog from their coverts and reconciled them to man's companionship.\* The form and the free position of the Tibetan *mi* &c. in the different compounds in which it occurs, show that it is not a derivative from Scythic. It must be equally archaic in both branches of the Tibeto-Scythic stem. The ultimate source, or primary meaning, of the root appears to have been *man*, male or female. It was afterwards applied to the males or females of the lower animals. In the Bhotian *si-mi Cat*, Manyak *wo-mi Cow*, ding-*mi Buffalo*, *mi* has probably its feminine function. The Bhotian and Gyarung *mi Man* is the same form of the labial. It is also Ugrian *mi*, *ma*, *mis*, *mes*, *mias*, *mas*, *muz*, *min*, *man*, *mar*, *mur*, &c., and in that family may also be the source of the similar names of domestic animals. The Bhotian *pha*, *pa*, *ba* &c. *father*, and *ama*, (*ma*, *mo* &c.) *mother*, have not only been applied to animals, to designate the sex, and thus originated substantive names, but have come to be used as definitives with inanimate substantives. The slender form is not current as a definitive in Bhotian, Horpa or Gyarung, but it is found in Thochu *-mi*, *-pi*, Manyak *-mi*, *-pi*, *-bi*, Lhopa *-be*, and in Gangetic dialects.

The Bhotian *byi* of *byi-la Cat* although primarily identical with the servile sexual *bi*, *mi* &c. has evidently had a distinct history. It presents itself as a root used substantively for the *Cat*, and that this application was very archaic appears from its being found both in the Chinese glossary and in that of the Scythic, and most of the other Asiatic formations. *La* appears to be the masc. liquid root used postfixally as in *pa-la father*, *chang-ra goat*, *chu-la cat*.

*Ba*, *Cow*, is the same root as the *pha* in *pha chuk*. *Serpa* has *ma chu*. *Ba* or *pha* and *ma* are identical with the Bhotian sexual labial definitives and postfixes, *pa*, *ba*, *po*, *bo* &c. masc., *ma*, *mo* &c. fem.

In the Lhopa dialect of Bhotian *bha* is the *bull*, *lang* the *cow*; the compound *ba-lang*, *pa-lang* is used in some dialects for the *cow*. In *lang-bo-che*, *elephant*, *lang* takes the masc. postf. The *wo* of Manyak is also radically the same masc. def. It has the same form in Thochu as a postfix, *mar-wo Bird*, *nyang-wo Crow*. Bhotian has *bo*, *vo*, *pho*, *po*.

\* I have found a somewhat similar remark in Admiral Schischkoff's *Vergleichendes Wörterbuch* ii., 224.—Referring to the identity of some widely prevalent names for the *Cat*, *Dog*, and *Mouse*, he explains it by saying that they must have been the first domestic animals.

Both *ba*, *pha*, or *wo* and *lang* must have been originally applied as qualities to the *bull*, with or without another substantive root conjoined. It is probable that *chuk* preceded them as the substantive and that *chuk*, *ba*, *chuk wo*, *chuk lang*,—or *ba chuk*, *wo chuk*, *lang chuk*,—were current like *pha chuk* and *ma chuk*.

The broad form of the labial root for *Man*, *ba*, *pa*, *wa*, *wo*, *bu* is a very common one in the zoological vocabulary, with different applications, and with or without a final consonant, *s*, *l*, *k* &c. It has frequently a masculine application, both when used for the bull and ox, and for the males of other quadrupeds. It is applied to the *Bull* in Scythic, *buga*, *buka*, Indo-European *buka*, *bugu*, *buk*; *wol*, *wul*, bull: *bus*, *bos*, *bu*, *be*, *wo* (Scythic *maus*, *mis*, *wo-gol* &c. &c.), and to the *Ox* in Circassian, *wwe*, *be*, *b'ly*.

The Tibetan *phag*, *pha*, *wa* &c. *Hog*, is distinct in form from *mi* and *byi*, and is evidently a very archaic variety of *pa*, *ba* &c. The labial does not appear to retain a similar form with the same application in the glossaries of the other great families, but it is still current for the *goat*, *sheep*, *ox*, *deer* &c., in Scythic, Indo-European, Semito-African &c. and it is frequently applied to the male. It is not Chinese in any of these applications, and it therefore belongs to the Scythic side of the basis glossary, but without being a derivative from Scythic. It is one of the distinctive archaic vocables of Tibetan. Its relations to the examples of the same root found in other families will be considered when the Ultra-Indian forms and applications have been given.

II. The liquid root is one of the primary or most archaic of the Tibetan, and hence enters into many animal names. It appears in the form *lang*, *la* to have become one of the proper native words for the *Cow* and to have been afterwards applied to the *Elephant*; in the form *ra* it has become a substantive name for the *Goat*; and in the form *ru* for the *Cat*. A different form of the same root, or a primarily distinct liquid root, appears to be the native term for the horse *ró* (probably a softening of *rok*), *rhi*, *ryi*.

This root has also a masculine application. Its primary meaning is *man*, *male*, and it occurs extensively in the Chino-Himalaic vocabularies in masculine terms,—*man*, *husband*, *father* &c.,—and as a masculine definitive with the names of animals, in various forms, *nan*, *lang*, *leng*, *la*, *lu*, *lo*, *long*, *log*, *ru*, *ling*, *ri*, *ren* &c. The Bhotian word for *father*, *pa-la* adds it to the labial root of old Bhotian. In *chu-la'*, *lo-chi* *Cat* and *chang-ra* *Goat* it has probably the same function. It is a widely spread root for *man*,—Chinese, Turkish, Mongolian, Semitic, African and Dravido-Australian.

The more immediate affinities of the root in its application to the *Cow* are found in the Ugro-Semitic band. Fin *Cow* *loh*, *loch*, *leh*, *or*, *er*, *la*,—*loh-ma*, *loch-ma*, *leh-mu*; Caucasian *Ox*, *her-ga*, *hor-g*, *or-j*, *or-r*, *er-dse*, *hyer-ko*, Ugrian *yzh-la*, (comp. *ish*, *ysh-kuzh* &c.), *ok-or*, (comp. *uk-ys* &c.), Tungusian *or-gol* (comp. *gol* Turk.); Indo-European *aur-ochs* (*ochs* is Scythic), *ur-us*; Caucasian *ol*, *al* (Lesgian); Semito-Nilotic *lo-<sup>16</sup>* *Gara*, *lahi-thin* *Mahrah*, *lahe-mi*, *la-me* *Tigre*, *la-m* *Amharic*, *Harragi*, *Gafat*, *lu*, *lo-<sup>wa</sup>*, *he-lo-a* *le-wu* *Agau*, *la-mu-wi* *Gafat*, *la* *Danakil*, *loh* *Saumali*, *lo-ni* *Galla*, *la-n* *Tumali*, *ai-ra* *Dalla*; *bull* *oura* *Danakil*, *Amharic*, *uhur* *Arkiko*. The Semitic form, as in so many other instances, must be directly connected with the Caucasian; and from the Lesgian *al*, *al*, and the *Mahrah* and *Tigre* *lahi*, *lahe*, it is evident that this S. E. group

is more immediately connected with the Fin than with the Tibetan. In the Chinese, Scythic, Indo-European, Caucasian, Semitic and African families the prevalent names for the *Cow* contain different roots. The Tibetan name is therefore independent. The Fin loch, loh is a variety of an archaic form applied to the *Horse* in Ugro-Tibetan, and to the *Deer* in Chinese, and probably connected with Tibetan forms for the *Cow* only through the derivation of both from the same archaic Asiatic masculine root.

Ra *gout* (ra-ma *f.*, ra-ba *m.*) appears to be the same root. The word is only found in Bhotian. It is not Chinese. It seems clear therefore that ra was originally derived from chan-ra, a masc. form of the root chang.

The liquid root is applied to the *gout* in Semito-Nilotic languages, ha-run Mahrah, a-ron Gara, ho-rar, ri, re Galla, illa Danakil, arre Saumali, araha Bulanda, [eru, eri, ere Isoama &c. is probably a contraction of the com. African e-wure, wuli, e-puri &c.]; arre Saunali. But these names do not appear to have any direct connection with the Tibetan.

Ró *Horse* is Ugrian, and the guttural is preserved in Ostiak log, loch, low, (in other Ugrian languages lo, lu, lyu; wol, wyl, wal; lowu. The Ostiak guttural form corresponds not only with the Sifan ró, but with the Chinese luk, lú, ló *deer*. In E. Tibet and Siling it is also used as a generic vocable for *sheep*, two kinds of which are known as ha-luk and pe-luk (Hodgson J. B. A. S. xvi, 1008). The root may also be contained in the Samoiede bo-ra, Koria mol, mar, Tungusian mo-ro-n, mu-ri-n, mu-ri-l, Mongolian mu-ri-n, mo-ri—this liquid form corresponds with the Horpa rhi. But in this prevalent Tartar term the liquid is either one of the common finals taken by monosyllabic roots in the Scythic family or it is a sex postfix, the root being mo, mu, cognate with the Chinese ma. In the Ugrian and Turkish ala-sha, Turkish lo-sha and Caucasian ulohi (Misjejian), it may be a substantive root, as in the Ugrian lo &c.

From the occurrence of the liquid as a prefix or postfix in the human sex names and in several names of animals in Scythic glossaries, it is probably servile and masculine, or was so originally. *Man* Fin al-maz, ul-muz, Ugrian lo-man, iri-golos; *Husband* Fin ol-ma, ul-ma, we-lo-man, Mongolia ere, Turkish ire, eri, er, ir, er-kek, er-in, ar-ini; *Cat* ir-my-shak, er-gek-myi, Turkish (so ata-p-shik, ata being *father*); *Dog* koi-ra, koi-re, koi-ru Ein, ul-tschip, al-ship, il-tschap (also tschip &c.) Yeniseian; Ox or-gol Tungusian.

If we consider the labial as the substantive root in the Scythic mo-ro-n, mu-ri-n, and ro, ri as masc. serviles, which in the Ugrian og &c. have become substantives, the same view must be taken of the Tibetan bo-ró, ró, which are thus placed in the same class with pa-la, pha; chang-ra, ra; chu-lá, wó-chi, rhu; and perhaps r-ta, if the Bhotian prefixal r-, l-, s-, z-, b-, p-, v- be, as is probable, contractions of the originally masculine definitives la, ba, si &c. As the form ro is no longer current in the southern Scythic languages, it must belong to the archaic Ugrian basis of Tibetan, like a large proportion of the other vocables. In the Ultraindian vocabularies the masculine liquid root retains the guttural final in several dialects. Indeed all the Scythic forms are found,—ri, rin, ron, log, lok &c.

III. The sibilant in its application to the *cat* appears to be archaic, and native. The root is found in Scythic vocabularies for the *Mouse* (e. g.

Turkish *shish*, *zis*, *shi* &c., in *shish-han*, *shi-han*, *shyshi* &c.), and a similar root is combined with the labial root in the Ugrian *me-tschik*, *ma-tska*, *mi-sak*, and Mongal *mi-choi* (also *mii*) *cat*.

In the Tibetan vocabularies (Horpa as well as Sifan) the sibilant root is the prevalent one for *goat*, *chang*, *chhe*, *tsah*, *so*. It is a common Scythic root, occurring in names for the *cow*, *horse*, *dog*, *hog*, *mouse* and *sheep*. It is doubtless applied to the *goat* also, but most of Klaproth's Scythic vocabularies omit the word. In other highly Scythic glossaries it is applied to the *goat*. It is the prevalent Caucasian root—*ze*, *tzia*, *etcha*, *chan*, *zu-ku*, *tn-ka*, *ze-ki*, *ka-za*, E. Caucasian; *ga-se* Misjejian, *b-zhen*, *zhi-ma*, Circassian; *tcha* Georgian, *sa-ga*, *sa-g*, *zan*, *zan-ek* Ossetic; Indo-European *zie-ge*, *chha-gal*, *chha-g*, *a-ja*, *chhe-lo*, *tsa-wul*; Semito-African *ne-ze*, *bi-se*, *e-ge-so*, *i-mi-shu*, *fi-zo* [*fis*, *fus*, *sheep* Ossetic], *de-sha*, *sids*, *sikh*, *e-su*, *mbo-zi*, *si*, *si-na* &c.

The same root has as great a range in its application to the *cow*. The Tibetan *zyah*, *zi*, *chuk*, are Scythic in their immediate affinities. *Chuk* is Tungusian *chyu-kun*, *hu-kur*, *ku-kur*, Yeniseian *thu-ga*, *tu-k* &c. The root has the same application in the Ugrian *ish*, *osh* &c. *ox* [Indo-Eur. *ochs*, *ox* &c.], Mongolian *shar*, *zar* *bull*; Caucasian *is*, *os*, *ots*, *stu*, *ust*, *n-itz* &c.; Indo-European *ochs*, *ox*, *oss*, *osse* &c.

All the applications of the sibilant appear to be Scythic in their affinities. Chinese does not use this root for the *cow*, *goat* or *cat*. It is applied to the *Mare* *shie*, *she*, *Hog* *chu*, *chi* &c., *Musk deer* *she*, *Mouse* *shik*, *shu* (as in Turkish &c.), *Rat* *shu*, *chuk*; and in the same form to the *squirrel* and *weasel* with qualitative roots preposed. The Chinese *chi*, *chat*, *stallion*, appears to be the same root in its masculine Tibetan, Scythic, Caucasian and Indo-European application.

The dental root is, in many cases, the same as the sibilant, and has a similar range. As a name for the *Horse* the Bhotian *r-ta*, *ta* is cognate not only with the Turkish *at*, *ut*, but with the Chinese *shie*, *she*; Scythic *sha* of *ala-sha* (Ugro-Turk.), Indo-European *as-p*, *ash-na*, *tzi*, Caucasian *shu*, *shi*, *che*, *chak* &c., Semitic *sus*, *has-on*, *his-an*, African *eis*, *es*, *sy*, *si*, *su*, *so*, *dsu*, *e-si*, *e-dsi*, *a-shi*. The Bhotian *ta* appears to be an archaic form. It is found (reduplicated like *s* of the Hebrew *sus*) in the Dravirian and N. Indian *tata*, *tatu*. Exactly similar terms in *t* and *s* or *sh* are widely current names for the *dog*, *hog*, and *ox*.

The Horpa *ka-tá*, Manyak *k-shá*, *dog* correspond with the Turkish *eda*, *it*, *ot*, Koriak *a-tan*, *a-tar* &c., Kamschatkan *ke-tan*, *ko-sha* &c., Aino *stah-pu*, Yeniseian *tzi*, *il-tscha*, *tship*, *tip* &c.

The Bhotian and Horpa *s-tag*, *tak*, *Tiger*, is a consonantal and probably more archaic form of the same root.

From this form, the abrupt accent of *tá* and *shá*, and the application of the root to the *dog*, *horse* and *tiger*, it is probable that the root was one of the primary ones of the Tibetan glossary.

Like the labial and liquid roots its primary application was also to *Man*, and most commonly in the sense of *Father*, *Progenitor* &c. It occurs in many families in reduplicated forms *tata*, *dada*, *titi* &c. In the Scythic vocabularies it is equally common with the labial root as the word for *Father*, Ugrian *isi*, *ese*, *atte*, *ata*, *tato*, *tatei* &c., Turkish *ata*, *ate*, *asio*, Mongol *etschi*, *etschi-ge* &c., Japan *titi*, *tsitsi*, &c. &c. The reduplicated Scythic form is also Indo-European and Zimbian. In the Himalaic family it does not appear to be one of the primary and prolific roots, but it occurs in

Horpa *v-zih man* and Manyak *chho' man*, which show the same variation from the palatal and broad to the purely sibilant and slender form that is seen in *chiu*, *cheu*, *chi*, &c. in the names of the *cat*, in *chang*, *tsah*, *so*, *chhe* in those for the *goat*, and in *zum*, *tyu*, *si* in those for the *monkey*. The broad form of Manyak is Ostiak *cho*, *choi*, but the normal Scythic form of *cho* is the guttural *ku*.

IV. The guttural and nasal roots do not appear to have been primary and prolific, unless *khi dog* and *ki hog* be both native, and the former only primitively connected with the Chinese.

From this general survey of the Tibetan names of the domestic animals, we infer that labial roots now having the forms *bi*, *mi* &c.; *phag*, *pha* &c., and *ba*, *wo* &c.,—liquid, now having the forms *lang*, *la*, *lo*, *ra*, *rhu*, *ró* *luk*,—sibilant and dental, now in the forms *si*, *chi*, *chu*, *cheu*, *chhe*, *cha*, *chang*, *tsah*, *so*,—and dental, in the forms *tag* or *tak*, *tá*, *ta*,—were among the primary roots of the family. Of these the earliest to acquire a specific substantive meaning appear to have been the labial *bi* in its application to the *Cat*, the labial *phag* in its application to the *Hog*, the labial *bo* in its application to the *Horse*, the sibilant-palatal in its application to the *Goat* and *Cow*, the aspirate-guttural in its application to the *Dog*, and the dental and aspirate in its application to the *Dog*, *Horse* and *Tiger*. The labial in its other applications, and the liquid, appear to have remained servile to a comparatively late period, and they probably still retain their sex function in most of the names in which they occur.

The primary roots connect the Tibetan or Himalaic family with the Scythic as dialects of one proto-Scythic monosyllabic glossary, distinct from the Chinese, but having also affinities with it. The separation between the Chinese and Scytho-Tibetan vocabularies must have taken place at a much more remote period than that of the separation of Tibetan from other proto-Scythic vocabularies. At the latter period several forms of the common roots had acquired specific applications, which they have retained in Tibetan and in several of the widely diffused Scythic and Scythoid vocabularies of the Old World. Others again are proper to Tibetan, and indicate the great antiquity of the separation. This is also proved by several of the common forms being best preserved by languages now widely removed from Tibet—as the Ostiak. In speaking of the period of separation it is not intended to limit the connection to one age. There may have been successive contacts between Scythic and Tibetan vocabularies in archaic as in recent ages.

The only name that may indicate an archaic connection with the Chinese nomenclature is the guttural root in its application to the *Dog*. The other radical Chinese names are different from the Tibetan. The names for the *Cow*, *Horse*, *Sheep*, *Cat*, *Hog*, *Tiger* and *Monkey* are quite distinct. A Chinese root for the *Deer* is the same as the Tibetan for the *Sheep*, but this is one of those primordial affinities that may rank with those of the pronouns.

The other Chinese names found in the Tibetan vocabularies are evidently intrusive and comparatively modern. Some have the forms of the ancient Chinese phonology, and some the emasculated Kwan-hwa. Like many other Chinese words in these vocabularies they prove that the Chinese race is that with which the Tibetan tribes have been longest and most intimately connected in the latest era of their ethnic history. Broad Chinese names for the *Cow* are found in all the vocabularies along with native ones, save



in Gyarung which has the modern or Kwan-hwà name only. The Chinese name of the *Elephant* appears to be annexed to a native root in all the dialects. The Chinese name for the *Tiger* is found in the gutturalised Gyami form of Kwan-hwa in Thochu and Gyarung, and in the old Chinese form in Manyak. The Gyarung name for the *Hog* and the Manyak name for the *Monkey* appear to be corruptions of the Chinese.

The 2d step is to examine the nomenclature of each animal, with a view to ascertain the extent of the dialectic divergency.

The *Cat* has five names, 1. *byi-la* Bhot. wr.; 2. *si-mi* Bhot. sp., Sokpa and Takpa; 3. *chu-la'* Horpa, *chi-lo* Thochu; 4. *ma-cheu* Manyak; and, 5. *ta-ru* Gyarung. In these names the sibilant substantive and the liquid servile are the most prevalent roots, and they connect all the dialects. Special connections exist between Horpa and Thochu, both possessing the substantive and qualitative roots combined in the same order, though differing in form; between Bhotian and Thochu in the slender form of the substantive; between Horpa and Manyak in its broad form; between Bhotian and Horpa in the a, and between Thochu and Gyarung in the o, u, of the servile. Old Bhotian in its use of the slender labial as the substantive, is peculiar, the Sokpa and Takpa being obviously derivatives from it.

The *Dog* has 2 or 3 names, 1. *khyi* Bhot wr., *khi* Gyar., Takpa, *khwa'* Thochu; 2. *uyo* Bhot. sp.; 3. *ka-ta'* Hor., *k-sha'* Manyak. Here also Horpa and Manyak, at the two extremities of the province, agree. Possibly *ta'*, *sha'*, is the primary Tibetan name, and *khi* &c, a later intrusive one of Chinese origin.

The *Hog* has 2 names, 1. *phag* Bh. wr., *phak* Bh. sp., *pha* Takpa, *vah* Horpa, *wah* Manyak, *pi* Thochu; 2. *ki* Gyarung; in which the connection between Horpa and Manyak is again illustrated.

The *Goat* has 2 names, 1. *ra* (the sex qualitative, for the substantive) Bhot. Takpa; 2. *chang-ra* Bhot., *tsah* Thochu, Manyak, *chhe* Horpa, *ku-so* Gyarung. The normal vowel is preserved by Bhotian, Thochu and Manyak. There are other instances in the vocabulary of Horpa affecting e and Gyarung o (and e).

The *Cow* is known by 6 names, 1. *ba* Bh. wr. (*pha* in 3), *bá* Takpa, 1 a. *wo-mi* Manyak; 2. *lang*, *ba-lang* Bh.; 3. *pha* *chuk* Bh. sp.; 4. *ngau-me* Horpa, *gwa'* Thochu, *nga-ti*, *bull* Manyak; 5. *nye-nye* Gyarung; 6. *zya*, *bull*, Thochu (*nga-ti* *bull* Manyak). For this important domestic animal 4 native and 2 Chinese names are current. The southern Chinese *ngau*, *gu* preserves the archaic broad form, to which the Horpa, Manyak and Thochu *ngau*, *nga*, *gwa'* are referable. The softened Kwan-hwa *niu* is the original of the Gyarung *nve*, through the Gyami *neu*, *nyeu*. The Chinese name is found in the Lhopa dialect of Bhotian, *ngo*, as the generic term, *ba* being confined to the male and *lang* to the female, from which it may be concluded that the Chinese name was at one time received into all the Tibetan dialects.

The *Elephant* is known by the same Tibeto-Chinese compound in all the dialects.

The *Horse* has 3 names, 1. *r-ta*, *ta* Bhot., *té* Takpa; 2. *bo-ró* Gyarung Manyak, *b-ró* Manyak; 3. *ró* Thochu, *rhi*, *ryi* Horpa. The remarkable fact here is that the Bhotian name should be exceptional.

The *Tiger* has 3 names. 1. *s-tag* Bh. *wr.*, *tak* Bh. *sp.*, *s-tak* Horpa. *tée* Takpa; 2. *khú* Thochu, *kong* Gyarung, 3. *le-phe* Manyak. Of these the Bhotian, Horpa and Takpa words are native. The Thochu and Gyarung are from the Gyami form *khu* of the aspirated *Kwan-hwa hu*, and the Manyak is a native slender form of the original Chinese *lofu* &c.

The *Monkey* has 3 names. 1. *s-pre-bu* Bh. *wr.*, *she-pri* Gyarung, *pra* Takpa; 2. *tyu* Bh. *sp.*; 2 *a. zum-dé* Horpa, 2 *b. ti* Gyarung, *wai-si* Thochu,—the Gyarung having the Bhotian form.

The roots possessed by each dialect, and the relation of each to the others will be best shown in a table. I have added the names for *Fish*, *Snake*, *Bird*, *Crow*, *Ant* and *Mosquito*. (See next page).

From this table it appears that in the names for animals comprised in it, there is—when we exclude those of Chinese derivation—a close radical agreement in all the vocabularies, the variations being chiefly phonetic. The dialectic relations indicated are:—

1st, a very intimate one between Bhotian and Takpa, the latter adhering to Bhotian when the other dialects depart from it; and the difference being, it almost every case, merely a slight phonetic one. In its greater vocalic tendency Takpa partakes of the Sifan phonology.

2d, a connection between Bhotian and Gyarung, in the form of the roots for *Dog* and *Fish*, in the roots for *Monkey*, *Bird*, *Crow*, and *Ant*, and in the prefix in the words for *Monkey*, *Crow* (G. preserving the fall form *ta*, Bh. has *a-*), and *Ant*. The connection is chiefly with the old or written Bhotian, the words for *Dog*, *Monkey*, *Bird*, and *Ant* preserving the old Bhotian roots or forms while the spoken Bhotian has lost them.

3d, a very slight connection between Manyak and old Bhotian. The Manyak *b-ru snake* like the Takpa *m-rui* preserves the vowel of the Bh. *b-rul*.

4th, an archaic separation between Bhotian and the other dialects save Takpa, as shown in the forms of several of the roots and prefixes. The special connection indicated under the preceding heads, if archaic, would be inconsistent with the early divergence indicated under this head. It is attributable to the dialect of the Bhotians having acquired more or less currency in the provinces of the other tribes, during the period when the Bhotians were predominant, and this must have been while the old phonology still prevailed. As illustrations of the archaic separation of the dialects, we may point to the different roots, or combinations of roots, for *Cat*, *Dog*, *Horse*, *Monkey*, and *Fish*, and to the difference of the prefixes in the Bhotian-Gyarung *g-rog*, *ko-rok*, Manyak *bu-rá* *Ant*, and in *s-b-rul* Bh., *hsu-b-ri* Gyarung *Snake*.

5th. A special connection between Horpa and Manyak,—*Cat*, *Dog*, *Hog*, *Cow*, and *Crow*,—and the comparatively slight trace of such a connection between Horpa and Thochu (*s-kh-ro*, *tu-kh-ra* *Ant* being the only example), and between Horpa and Gyarung. As this special relation of Horpa to Manyak extends to some other substantive words, but not to the pronouns and the mass of the abstract and qualitative vocables, and as the Horpa are known to be adventurous and nomadic, being even now scattered over southern Tibet, it is probable that a Horpa horde at one period mixed with the Manyaks, and communicated to them a portion of their vocabulary. The intercourse of the Manyaks with the Horpa, however caused, appears to have been more intimate than with any other of the Tibetan tribes.

	Bhotian	Bhotian sp.	Horpa	T'hochu	Gyurung	Manyak	Takpa
1 Cat	wr. byi-la	st-mi	chau-lá	lo-chi	ka-rhu	ma-cheu	svi-m-bu
2 Dog	khyi	uyo	ka-tá	khwa'	khi	k-sha	khi
3 Hog	phag	phak	vah	pi	ki	wuh	pha
4 Goat	ra	ra, chang-ra	chhe	tsah	ku-so	ts'ah	ra
5 Cow	bá	pha-chuk	ngau-mé	gwá	nye-nye	wó-mi	bá
6 Buffaloe	mahi	mahe	..	zyah (bull)	..	nga-zi (bull)	..
7 Elephant	g-lang-chen	lam-bo-chen	la-mo-chen	..	lang-chhen	ding-mi	..
8 Horse	p-ta	ta	rhí, ryi	ró	bo-ró	lang-chhen	lang-chhen
9 Tiger	s-tag	tak	s-tak	khó	kong	le-phe	teé
10 Monkey	s-pre-bu	tru	zum-dé	wai-si	ti	mi-ya-hah	pra
11 Fish	nya	nga	hya	izhá	chu-neyo	yu	ngá, nya
12 Snake	s-brul	deu	phá	bri-gi	khu-bri	bru	mirul
13 Bird	bya	chya	tyo	mar-no	pye-pye	ha	pya
14 Crow	kha-ta	ab-lak	ka-le	nyag-no	ka-b-yok	ka-li	ak-po
15 Ant	g-rog-ma	tho-ma	s-khro	tu-khra	ko-rok	ba-ra	rhok-po
16 Mosquito	san-lu	syé-dong-ma	l-ra-sa	be-up	..	bi-mo	pho-lí

6th. The connection between the proper Sifan dialects is not very close; and they must have had distinct histories from a very archaic period. Each has well marked specialities. The agreement consists in a common, but not identical, softening of the Bhotian phonology, and in some common non-Bhotian roots and forms, as in the word for *Horse*. Thochu has a slight special agreement with Manyak,—*Goat, Bull, Mosquito*.

In conclusion it should be remarked that, in so far as each of the vocabularies has received vocables from Chinese or from a sister Tibetan dialect, during recent eras, the archaic glossarial relations amongst the different Tibetan dialects, have been disturbed and obscured.

All the Tibetan roots are found in the Southern vocabularies. They have the same forms, but variations are also prevalent,—some of southern origin, and others archaic. The roots have not only the Tibetan applications but others, which are also, in several cases, archaic. The connection with the Tibetan vocabularies not only embraces all those phonetic and glossarial phases which the existing Tibetan data have enabled us to discriminate, but others which are not now distinctly marked in Tibet, and which indicate the archaic existence of conditions of the Tibetan language and dialectic peculiarities which are now obliterated.

The labial root is applied to the *Cow* and *Hog* as in Tibet; and also to the *Cat* (Kambojan), and *Dog* (Lau). It has consonantal guttural and dental forms not only in names for the *Hog* as in Tibetan; but in names for the *Cow*, *bik*, *bit*, *Elephant* *puok*, *mag*, and *Horse* *puk*, *mok*.

The liquid is applied to the *Cat*, *Cow*, *Elephant*, *Goat* and *Horse* as in Tibetan; and also to the *Dog* (Mon), *Lug* (Mishmi) *Buffaloe*, *Tiger* and *Monkey*. It has not only the Tibetan forms *la*, *lang*, *ra*, *ro*, *lo*, *ri*; but many others, *long*, *rong*, *ron*, *rung*, *rok* (i. e. the full form of *ro*), *ruk*, *rat*, *rak*, *lut*, *lok*, *luak*, *lak*, *dak*, *nak*, *roi*, *loi*, *ling*, *li*, *let*, *le*, *ren*, *re* &c.

The guttural is applied to the *Dog* as in Tibetan; and also to the *Goat*, *Tiger* and *Monkey*.

The sibilant, aspirate and palatal root is applied to the *Cat*, *Goat*, *Elephant* and *Monkey* as in Tibetan; and also to the *Cow*, *Buffaloe*, *Horse* and *Tiger*. It is not applied to the *Dog* as a primary root, but the guttural in this application varies to the dental, sibilant, palatal and aspirate.

The dental is, in general, a variation of the more prevalent aspirates (sibilant, palatal, aspirate-guttural). The Bhotian dental form for the *Tiger* occurs only in two vocabularies, and the same form is applied to the *Buffaloe* in some dialects. The pure dental is not used for the *Dog* and the *Horse*. The aspirates are common roots for the *Tiger*, *Dog*, *Horse*, and are not distinguishable from those for the *Cat*, *Monkey*, *Goat*, *Cow*, *Buffaloe* and *Elephant*.

The nasal, passing into the guttural (*ng*, *ny*, *g*), is applied to the *Cow*, *Buffaloe* and *Goat*, but it has in nearly every case a direct Chinese origin.

The primarily sexual meaning of several of the roots, and their retention of a merely qualitative function in many of the current names, is placed beyond doubt by the Ultraiudian languages. We have seen, in considering the words of family relationship, that the roots applied to males are the labial under the forms *ba*, *pa*, *wa*, *va*, *pang*, *po*, *pho*, *bu*, *pai* &c.; the liquid under the forms *lang*, *la*, *lung*, *lu*, *lo*, *ru* &c.; the sibilant under the forms *shai*, *sau*, *chiau*, *tho*, *thong*, *thuk* &c.; while those applied to females are the labial under the forms *ma*, *mo*, *mu*, *mi*, *me*, *mai*, *moi*, *mia*,

(sometimes bi, pi, pe &c.); the sibilant under the forms si, hi, sa, sya, tcha, chek &c.; and the nasal under the forms nu, num, na, ne, nyong, yong, jong, ing &c.

Of these the two forms of the labial and the liquid are the common sex words; and they occur most frequently as such, or as substantive words, in the names of animals. The sibilant is rare as a sex qualitative. It is a very common element in names of animals, but from its rarity as an indubitable sex term, from its form, and from the sex words usually joined with it, we must consider it as an independent root in the existing Himalaic animal vocabulary, whatever it may have been originally.

In many cases it is difficult, and in some impossible, to ascertain which of two conjoined roots, both primarily sexual, is substantive, and which qualitative. It also happens, from the cumulative habit of the formation, that a name sometimes contains three sex roots,—the one that originally became substantive; another first joined with it as a m. or f. qualitative, and afterwards losing its sex meaning and becoming definitive or concreted; and a third superadded to mark the sex again. Thus the masc. root lo applied to the *Elephant* took the masc. labial pref., and on this concreting with the root, p-lo, a sex postfix was added p-lo-bi. The root tso applied to the *Cow* took the masc. qualitative ka-ru, and this concreting into a postfix, the fem. form became ma-tsa-k-ru, equivalent to "female Bull". If ma-tsa first concreted, ma-tsa-k-ru must originally have been applied to the Bull ("male Cow"). In several instances the same compound of two sex roots changes the functions of the roots with the dialect or with the application. Thus in such a word as la-mi or mi-la, the labial must be considered as substantive in one application, because it is so in dialects where it rejects the liquid and appears as a simple root or with distinct serviles, while in a different application the liquid is obviously the substantive. In marking the qualitative roots in the compounds I have been guided by a comparison of vocabularies and by general probabilities in each case, but I am far from confident that a larger acquaintance with the glossary of the formation will establish the correctness of my analysis throughout.

The following appear to be examples of the qualitative use of the sex roots. Whether in a particular dialect, they retain the original sexual meaning or have sunk into definitives absolute, or those marking a class of animals, can only be ascertained when the existing habits of the dialect are better known. When the form agrees with that of the current sex words, as it does in some of the dialects for which we have grammatical details, it probably retains its masculine or feminine function even when it has become a prefix or postfix. I give a few names in which the sexual or definitive use of the qualitative appears to be preserved.

For the *Cat* we find la-mi; ja-mi, me-sa, mo-chi, min-cho, in which the two Tibetan roots are conjoined with a fem. def.; and ngwai-pai, pa-kwai, ha-ngau-bi in which a Chinese root has masc. definitives. For the *Dog* we find choi-ma; for the *Hog* ba-li m., ti-li prob. f. (ti=si), cha-ruk f.; for the *Goat* pu-run m.; mi-k-re, me-te-le m.; chheng-ar, cho-le, tso-be, sha-bam m.; mi-cha, ma-dze f.; for the *Cow* chu-ma, man-chu, ma-su, mi-thu, sha-me f., cho-rong, cha-ra, si-ra m., noi-tom m., ma-tom f. ma-tso-k-ru m.; for the *Buffaloe* wai-roi, pai-nai, pa-na, pa-ren m.;

for the *Elephant* mag-ni, woi-pong, p-lo-bi m.; for the *Tiger* mi-sa, ma-sa, ma-cha, sah-nu, cha-nu f.; khu-bui, khu-bi m.; for the *Monkey* si-mai, mai-nak, me-nak, mo-kha-ra, si-be f., le-be m.

The nasal fem. root occurs rarely,—lok-niu *Elephant* Tablung (neu Chinese), sa *Tiger* Namsang, sah-nu Mulung, Tablung, cha-nu Joboka, chia-nu Muthun (nu Chinese, Kumi). In the Angami te-nu, M. Angami ta-nu *Goat*, Nogaung ta-nu, Angami and M. A. nu-no *Cat*, it appears to have become a substantive name, ta, te &c. being the most common prefix in these dialects.

The sibilant is so common as a root that it is difficult to distinguish in what cases it is used as a sex qualitative, and the difficulty is increased by some of the masc. and fem. forms closely resembling each other.

The following appear to be examples of substantive applications of the sex roots.

The masc. labial is applied—in the forms pai, bai, woi—to the *Goat* in Mijhu Mishmi kam-pai, Mon kha-bai, Toungthu bai, Bongju woi; to the *Cow* in Kumi kha-boi; to the *Elephant* woi, mwi;—in the forms mi, bi, me, bhe to the *Goat*; to the *Cow* bi, mih, pi, bit &c.; to the *Monkey* be, we, pi; and to the *Cat* mi, bi, be; in the forms wo, po, mo, bo, woa to the *Cow*; in the forms me, moh, pang to the *Buffaloe*; in the forms vu, phu, pong, mu, mun (phang fem. in Lau) to the *Elephant*; man, mang, beng to the *Horse*; wun, myu, mang to the *Monkey*; in the form muk to the *Cow*; mag, puok to the *Elephant*; mok, puk to the *Horse*; muh to the *Monkey*.

The masc. liquid is applied to the *Dog* in Mon ka-la, to the *Tiger* in Mon and several other dialects k-la, si-ra, sa-rong, rang-hu; to the *Goat* in several vocabularies k-lang, b-lang, ke-l, [from mi-k-re]; to the *Cow* in Karen k-lo and Mon ku-rau; to the *Buffaloe* in many dialects lang, long, loi, lui, roi, la, le, reh &c., to the *Elephant* p-lo, lok, luak; to the *Horse* rang; to the *Monkey* lan, lak, nak, ra, rhu, ling, ri, re.

I tabulate some identical forms showing variations from qualitative to substantive applications.

mim-boi	<i>Cat</i> ,	Kumi.
kha-boi	<i>Cow</i> ,	"
woi	<i>Goat</i> ,	Bongju.
woi-tom	<i>Cow</i> ,	Songpu.
woi-pong	<i>Elephant</i>	Maram.
khu-bui	<i>Tiger</i>	"
kam-pai	<i>Goat</i>	Mijhu.
pai-noh	<i>Buffaloe</i>	Kumi.
a-pang	<i>Buffaloe</i>	Khari.
pong	<i>Elephant</i>	Manipuri gr.
phang "	<i>Elephant</i> fem.	Siam.
phak	<i>Hog</i>	com.

wok	<i>Hog</i>	
bok	"	
puok	<i>Elephant</i>	Namsang.
sa-puk	<i>Horse</i>	Tangkhu.
ka-phuk	"	Lungkhe.
mok	"	Mamsang.
moh	<i>Buffaloe</i>	Assam.
wet	<i>Hog</i>	Burman.
sa-wet	<i>Buffaloe</i>	Limbu.
ka-la	<i>Cat</i>	Mon.
ka-lo	<i>Tiger</i>	Mon.
k-la	"	Kasia.
ra	<i>Goat</i>	Bhotian.
la	"	Tiberkhad.
men-da	"	Limbu.
de	"	Anam.
le	<i>Buffaloe</i>	Namsang.
ahin-reh	"	Kasia.
sh-ri	<i>Monkey</i>	Kasia.
ling	"	Lau.
ku-ri	<i>Horse</i>	Tengsa.
ba-le	<i>Hog</i>	T. Mishmi.
ti-li	"	Gurung.
pi-li	<i>Goat</i>	Lhopa.
ra-li	<i>Buffaloe</i>	Angami.
ka-ri	<i>Horse</i>	Tengsa.
ma-k-re	<i>Goat</i>	S. Tangkhu.
k-re	<i>Horse</i>	Burman.
ma-kh-re	<i>Monkey</i>	Garo.
h-ro	<i>Buffaloe</i>	Sak.
k-ra-bo	"	Kembojan.
p-lo-bi	<i>Elephant</i>	Champhung.
ruh	<i>Cat</i>	Manyak.
ruh	<i>Monkey</i>	Serpa.
lang	<i>Cow</i>	Bhotian.
k-lang	<i>Goat</i>	Maring.
b-lang	"	Kasia.
ja-lang	<i>Buffaloe</i>	Mikir.
tan-lan	<i>Monkey</i>	Toung-thu.
ti-rang	<i>Elephant</i>	Anam.
kam-rang	<i>Horse</i>	Singpho.
m-rang	"	Burman.
se-rang	"	Chepang.
rang	"	Milchanang.
che-rong	<i>Cow</i>	"
che-long	<i>Buffaloe</i>	"
a-rak	<i>Hog</i>	Daphla.
men-dak	<i>Buffaloe</i>	Daphla.

<i>mai nak</i>	<i>Monkey</i>	Muthu.
<i>k-lak</i>	"	Silong.
<i>lok-niu</i>	<i>Elephant</i>	Tablung.

## I. CAT.

I. (a.) The old Bhotian *byi-la* is only found in the Bh. dialect of *Lhopa*, *pi-li*, but it occurs in a contracted form in the *Serpa* and *Sunwar be-r-mo*. *Murmi* has *ta-wa-r* and *Gurung na-wa-r*. The *Serpa* and *Sunwar* form is also *Male ber-ge* and *Uraon bir-kha*. Similar names are prevalent in *Telugu*, *Gond*, *Kol*, and in the *Sanskritoid* languages of Northern *India*, *bir-al Bengali*, *bil-al Gond*, *pili Telugu*, *balau Maldivian*, *billi*, *bil-lao Hind.*, *bilai*, *billee Sindhi*, *bra-ir*, *bra-ur*, *Kashmiri*. A similar word is used for the *Tiger* in *Dravirian*, *pili Tuluva*, *piri Toda*, *puli* in the other dialects.

The exceptional *Deoria Chutia midige* is probably *midige* from *mi-li-ge*, *birige* (comp. *Male ber-ge*, *Toda piri*, *Tuluv. pili*, *Hind. billi*).

(b.) The Bhotian form is also found with the masculine particle prefixed in the *Luhuppa la-mi*, *N. Tangkhul la-me*, in which the root has the same form as in the *Bhot. byi-la*. The *Mulung*, *Tablung* and *Mrung a-mi*, *Kyau mi* are probably contractions of a similar term.

(c.) The common *Yuma min* &c. of *min-cho*, *mim-doi Kumi*, *meng*, *mi Kyau*, *ta-myin Mru*, *min Khyeng*, *min-yo*, *tha-mi-yo*, *sa-min-yo Karen*, (? *heing Sak*), found also in *Mikir meng (Kyau)* and *Ahom men*, resemble the Bhotian *mi*, and do not appear to be variations of the Chinese vocable. But the *Kumi cho* of *min-cho* and the *Karen yo* appear to show that it was originally the fem. qualitative in this group also. [See III].

II. The *Gyarung* form *tu-rhu* appears to be the immediate parent of the broad *Burman k-roung*, *k-young*,—the *Burman* group having strong special affinities with *Gyarung*.

III. The liquid root in the prevalent slender form (*Chinese, Lhopa, Dravirian, N. Indian*) and with the *r* of the *Nipalo-Vindyan* forms, is found in the eastern sub-Himalayan band disjoined from the labial, or with a distinct root or definitive interposed. *Taying, Mishmi, ma-ja-ri, na-dza-ri, Abor-Miri men-da-ri, ka-da-ri, men-ku-ri, Changlo dai-ni* [comp. *Garó ja-rang, dai-rang all*]. The *ma-ja, ka-da* &c. of the *Mishmi*. *Abor* terms may have been double prefixes, in accordance with the *Tibetan* habit of heaping particles, which is well preserved in some of the *Abor* directives (*ante* p. 16), and if so they probably served to distinguish the names of the *Cat* from those of other animals having the same root, and one of the definitives. Thus *Horse* is *ku-ri* in *Tengsa Naga*; *Buffaloe* is *sa-loi, nga-loi* &c. in some *Manipuri* dialects; and in *Mishmi* the root, with one of the prefixes, occurs in *leh Hog (wild)*, *ba-li ib. (domestic)*, *ta-loi Buffaloe*. The *Lepcha a-leu* is probably a contraction of a *Bhotian* or *Mishmi-Abor* form, the former probably, as the adjacent dialects have *wa-r, be-r*. The *Dhimal men-khou* is the *Abor men-ku-ri* with the liquid elided, and the *Newar bhau* appears to be the labial prefix in a broad form (comp. *Maldivian bu-lau*). The *Kurgi na-ri Tiger* also separates the liquid from the prevalent *Bhoto-Dravirian* labial, and supports the derivation of all the *Dravirian* terms from *Tibetan* sources. It is connected with the *Abor-Mishmi* form *da-ri, —ta, da, na; sa, za, ja, cha* &c. being merely variations of the same *Tibetan* prefix. The liquid must have been carried across the *Himalayas* before it was concreted with the other elements, and



its diffusion is so wide that it must have taken place at an exceedingly remote period. The forms in which it is immediately preceded by the labials are probably West Tibetan or Bhotian, although at the time when they were transported from Tibet there were probably several Bhotian dialects. The Abor-Mishmi forms are probably East Tibetan, if *ri* be the root, *da*, *ka* &c. being an E. Tibetan prefix. The Gyarung *ta-rhu* would be a similar form, and *ta-ri* or *ta-li*, *da-ri*, *na-ri* &c. may have existed in other E. Tibetan dialects.

But another view may be taken of the Mishmi-Abor terms. In the normal animal nomenclature of the formation the liquid, as we have seen, was masc., and the labial in the forms *ma*, *mi* &c. fem. *Ma-ja*, *ma-dsa* may have been current as a fem. term, the root being *ja*, *dsu* &c. The superadded masc. postfix would make the term masc. *ma-ja-ri*. So from *ja-ri*, the masc. form, the fem. may have been obtained by the prefixing of *ma-*, or *ma-* when prefixed may have come to be a mere definitive. That *ja-ri* was the proper masc. form and had its counterpart in the fem. *ja-mi*, is established by the adjacent Mijhu Mishmi retaining that form as its generic name, in like manner as in sp. Bhotian the fem. *si-mi* has superseded all other names. We may conclude therefore that *ja*, *dsa*, is the root and merely a variation of the Tibetan *chi*, *chu*, *cheu*, (*cha*, *tsah*, *sha*, *ja* &c. in other applications; for *tiger* *su*, *tsa*, *ja* &c. are used). In *men-ku-ri*, *ku* may also be a variation of the same root (*chu*, *tu* &c.). (See *Dog*).

The same combination with the labial definitive preposed (as in *byi-la*, *pi-li*)—found in Manyak only amongst the known Tibetan dialects, (*ma-cheu*)—occurs in the South in Khari Naga *mo-chi* (Thochu *lo-chi*), Bodo *mou-ji*, Joboka *me-sa*, Kumi *min-cho*, Karen *tha-min-yo*. The Dophla-Aka *a-che*, *a-sa*, is a contraction of an analogous form. The Joboka and Dophla root vowel in *sa* corresponds with that of the Mijhu Mishmi *ja*. The Bhotian form *si* is preserved in Lungke *si-yo*, the final also occurring in the Karen *tha-mi-yo*, *tha-min-yo*, and being probably a soft form of *cho*, *jo*, as it does not appear as a servile in other names of animals.

The Horpa *chu-la* and Thochu *lo-chi* are not found in the south.

The Horpa form *chu* suggests that the Magar *su-thu*, (*su-tum* *be-r* Abor), C. Tangkhul *tu-mi*, Maring tung, Manipuri *hau-dong*, Khoibu *tong-kan*, Maram *tok-pa*, contain the same root in a dental form (as in the Deoria Chutia *mi-di* for *mi-li*, *pi-li* &c.). It undergoes a similar range of variation in some of its other applications.

The Tiberkhad and Milchanang *pi-shi* is explainable as a slender form of the Manyak-Naga combination, similar to the sp. Bhotian *si-mi*. Gerard gives both *pi-la* and *pu-shi* as Bhotian forms, and if *pu-shi* were genuine Bhotian it would be hard to resist the conclusion that *pi-shi* is also Bhotian, however much it would perplex the enquiry as to the directions in which this combination had been propagated. The Dravirian *pu-su*, *pu-chcha*, *pu-chche*, Kol *pu-si*, and Kapwi *to-pi-sa* \* are examples of the same vocable, and it has also been carried to Asonesia, *pu-so*, *bu-si*, *pi-tsa*. As the form *pu-shi* does not occur in any other vocabulary of Bhotian, it may be safely considered as an exotic from Tiberkhad if it is really used

\* In the App. to chap. v. the Pashtu *pishi*, *pishik* has been displaced and entered as *Kapwi*, and the Kapwi *to-pisa* as African. *Pisa* may however be *pi-sa*, comp. the Joboka *me-sa*. The Rotuma *pi-tsa* is the same variety.

by the true Bhotians of upper Kinawar. Gerard states that in the North-West of Ladak Bhotian becomes intermixed with Turkish, and if pi-shi be current in Ladak it is probably of Turkish derivation. The true general course of its archaic diffusion appears to be clear. It is a primary Scythic term cognate probably with the Tibetan, but distinguished from the current Tibetan by the sibilant invariably following the labial, and in its most common form taking a guttural final. Mongol has mi-choi and the probably contracted mii. The Tungusian terms are not given by Klapproth. Ugrian has mi-sak, mi-shok, ma-tska, me-tschik; and Turkish mu-shak, me-shuk, mi-shik, pi-shik, ata-p-shik, ata-ma-chi, ata-p-si &c. (*mouse shik-an* &c.). With these Ugro-Turkish forms are connected, on one side, the Caucasian pi-shik (Chari) and Semito-African bi-s, fi-so-na, mu-si, mu-sa &c. (the Turkish ata is also African), and, on the other side, the Pashtu pi-shik, pi-shi, Sindhi pu-si, and Tiberkhad-Dravirian pi-shi, pu-si, pu-sei &c.

The Chinese miao, mau, biu &c. is found in Anam, Lau, and Kasia in the original form miao, and the Mon-Anam stream has carried it to Tengsa meyau, Songpu and Koreng myau-na, Kumi miyaung and Garo myou. The Limbu and Kiranti myong, Namsang miang, Muthun miah are probably also Chinese through Mon-Anam. The Kambojan *chi-ma* may be the same root.

The Chinese niau, (Hok-kien, Hai-lam), ngio (Teo-chu), is found in Singpho ngyau, Jili *te-ngau*, and Champhung *ha-ngau-bi*. The Toung-thu ngwai-*pai*, and Mon *po-kwai*, are probably related to it.

Obs. The Bhotian root *byi*, pi with the liquid servile, only occurs in a few of the Manipuri-Yuma dialects, and the prefixal position of the servile shows that the Ultraindian names are not derivatives from the later concentered Bhotian and Lhopa *byi-la*, *pi-li*, but were received when the root was separate. This is made still more manifest by the prevalence of the labial root in the Yuma dialects, either separate, with a def. prefix, or followed by a distinct root. If the prevalent archaic Indian name be of Bhotian origin, it must be very ancient and derived from a glossarial current distinct from those that carried Bhotian words into Ultraindia. It was probably preceded in the Dravirian family by the Scythic *pi-shi* &c. which is found in Ultraindia and Asonesia, while no examples of *pi-li*, *bi-li* are found out of India.

The sibilant is not found in the Horpa and Thochu masc. forms, but the fem. form current in Manyak is common. The form of the root is not Manyak, whence it may be inferred that the connection belongs to the era when similar fem. forms were current in the Sifan languages, or Tibetan generally. The form *sa*, *ja*, *da* Mishmi, Dophla, Abor, Joboka—is not found in Tibet. The Horpa *chu* appears to be connected with the Magar *thu*, Kumi *cho*, Karen *yo*. The slender Bhotó-Thochu *si*, *chi*, is Bodo *ji*, Mulung *chi*, Lungke *si*. These various forms and their distribution attest an ancient and general transfer and diffusion of the Tibetan names to the southward.

The Burman *k-röung* is evidently one of the latest Sifan acquisitions, and belongs to the modern Gyarung-Manyak current.

The Chinese names, which do not occur in Tibet, appear to have early spread into the Ultraindo-Gangetic province. As they are best preserved in Mon-Anam vocabularies, it is probable that they were received by the other dialects from them. The Kumi, Koreng, Songpu, Tengsa, Kiranti and

Limbu names are all connected, and are the Chinese form with a nasal final.

2. Dog.

1. (a.) The Bhotian khyi, Gyarung and Takpa khi, has the same form in the South Bhotian dialects of Serpa and Lhopa *e-khi*, Abor *i-ki*, *e-ki*, Dhimal and Limbu *khi-a*, Newar *khi-cha*, Kambojan *chi-ke*.

(b.) The most common Ultraindian term is, in its full forms, *khwi*, *khwe*, *kwi* or *kui*. The Thochu *khwa* is a similar broad form and the adjacent Sokpa *nho-khwe* has the same form with the slender vowel of Burman, *khwe*. This identity between the normal Ultraindian form and the Mongolian, shows that the former was not derived from Chinese (*kiuen*, *hun*, *kau*), but from Scytho-Tibetan. That *khwe* is a distinct root in *nho-khwe* and the other Mongolian forms, *no-koi*, *no-gai*, *no-choi*, is clear from *koi*, by itself, being applied to the *sheep* in Mongolian, *koi*, as in Yeniseian, *koi*, *kay*; to the *Dog* in Korea, *kui*; in the Mongolian form to the *Dog* in Fin with a postfix or second root *koi-ra*, *koi-re*, *koi-r*; and, lastly, to the *Cat* in Mongolian *mi-choi*, Korean *koi*, *kui-ni*, Japan *ne-ko*. In its applications both to the *Dog* and *Sheep*, the guttural root has frequently a final *n* or second nasal root, in the Scythic vocabularies. Thus for the *Sheep* Mongolian has *cho-nin*, *cho-in*, *ko-ni*, *go-ni*; and for the *Dog* Tungusian has *nina-kin*, *nenaki* &c., and Samoiede *wene-ku*, *ka-nang*, *ka-nak* &c. The nasal is shown to be a distinct root by the Fin *piod-nak*, Japan *inu*, in, Aino *inu*, Tungusian *nyin*.

The Thochu and Burman *khwa*, *khwe*, *khwi*, *kwi*, being thus undoubtedly Scythic in their affinities, it is possible that the Bhotian *khyi*, *khi*, is a softening of *khwi*, and not a derivative of the Chinese *kiuen*. That the Sifan-Ultraindian form is not a modern derivation from the Sokpa *nho-khwe* is evident from its wide diffusion in the Gangetic, Ultraindian and Indonesian provinces, and from the Sokpa distinctive root *nho* being absent in Thochu and in the southern vocabularies. It must belong to the earlier ages of Scytho-Tibetan connection. The Gangeto-Ultraindian forms are as follows. Anam *khuyen*, Mijhu *Mishmi kwe*, Taying *M. n-koe*, *no-kwe*\*, Murmi *nangi*, Gurung *no-gyu*, Changlo *khu*, Chepang *kui*, Newar *khi cha*, Ti-berkhad *khui*, *kaui*, Milchanang *kwi*, *kui*, Garo *kai*, Mulung and Tablung *kui*, Singfu *gui*, *kwi*, Jili, Mru *ta-kwi*, Rakhoing *khwi*, Burman *khwe*, Karen *thwi*, *tai*, Toung-thu *thwe*, *ti-twi*, Luhuppa *thu*, Sak *ku*, Manipuri *hwi*. The contracted forms are *hu*, *su*; *zu*, *z*, *hi*, *shi*, *si*, *wi*, *ui*, *u*, *ai*. Namsang *Naga hu*, Muthun, Joboka, Mikir *hi*, Songpu *shi*, Maram *a-thi*, Koreng *ta-si*, Mozome *Angami ta-su*, [? *Angami the-fu N. Tangkhul phu*], Nogaung *a-z* [= *ta-zu*], Tengsa *a-rh* *Khyeng*, Kumi, Kyau, Kapwi, C. Tangkhul, Khoibu, Maring *wi* or *ui*, Kyau *bui*, S. Tangkhul, Shindu *u*, Khari and Silong *ai*.

The Horpa *ka-ta* and Manyak *k-sha* may be the Tibetan prototypes of the Lepcha *ku-shu*, *ka-zeu*, Limbu and Kiranti *ko-chu*, Newar *khi cha*, Magar *chhyu*, Sunwar *ku-chung*, Bodo *choi-ma*, *chi-ma*, *sei-ma*, Garo

\* Mr. Brown's form of the Taying-Mishmi word, *neko*, led me to believe that it and the Murmi *nangi*, *nagi*, Gurung *nagyu*, were distinct from the Tibeto-Ultraindian root *kh*, *kwi* &c. and allied to the Dravido-Australian *naya*, *nayi*, *nagi*, *nago*, *alay* &c. in which the root is *na*, *la* &c. It is now clear from Mr. Robinson's form, *nkoek-nokwe* (Mijhu *kwe*), that the Taying root is *koe*, *kwe* and *n-*, *no-* the Mishmi nasal prefix. The remarks on the affinities of the Dravido-Australian names of the *Dog* (ch. v. sec. 11) must be so far modified.

*a-chak*, Kasia *ka-sen*, Mrung *tchai*\*, Anam, Ka and Chong cho; but it is more probable that these forms are variations of *koi*, *gyu*, *khu* as in Mongolian.

2. The Anam *muong* †, Lau *ma*; Champhung *a-val*, Nankowry, *am*, *hume*—to which the Angami *the-fu* and N. Tangkhul *phu* may perhaps be added—is possibly one of the distinctive roots of the Mon-Anam sub-formation. If so the immediate affinities are Scythic,—*uang*, *bun*, *ban*, *men* Samoiede, *pon*, *puny*, *pine*, *piye* Ugrian. The name has been carried to Asonesia. But it is probable that it is merely the Himalaic *sex* root, used substantively as in so many other names of animals. The Lau form is applied to the *Cat* in Kambojan, *chi-ma*.

3. The Mon *ka-la*, *h-la* is the liquid, used also for the *Tiger* in Mon and some of the cognate vocabularies. It appears to be the common masculine root.

4. The Chinese *kau* has been introduced into Anam only.

Obs: The Tibetan vocables for the *Daq* are current in nearly all the Ultra-Indian and Gangetic languages. A form which appears originally to have been *khwi*, *khwe*, *khui* (Burman, Tiberkhad), and which the Thochu *khwi* indicates to have been of Sifan—probably Gyarung—derivation is found in most of the Ultra-Indian vocabularies, and it must have been carried eastward along the Gangetic band as it is found at the two extremes, Mishmi and Tiberkhad. It has undergone various changes of form; and special connections can be traced through them. In the Gangetic band the augmented form given by the Dhimal phonology is found in Limbu, and the *na*-prefix of Taying Mishmi is found in Murmi,—a relation to the Nipal group confirmed by other glossarial coincidences. (e. g. the peculiar word for the Hog *ha-li* T. Mishmi, *ti-li* Magar). In the great Ultra-Indian sweep of the vocable it presents modifications of one form only. No special affinities can be inferred from the present range of the full form, but the contracted ones show a close connection between the Karen, Yuma, Manipuri and Naga groups, which appear as a cluster of sister dialects. The Karen and Toung-thu *thwi*, *twi*, Luhuppa *thu*, Maram *thi*, show the beginning of the emasculation. In the Manipuri *hwi* the pure aspirate has ejected the dental. The Namsang *hu*, Moz. Angami *su*, Nogaung *z*, [Angami *fu*, N. Tangkhul *phu*, if not Mon-Anam] appear to be referable to it, and mutually connected. The Maram *a-thi* has probably a distinct connection with the Karen—Toung-thu forms, and it appears to have been the parent of the Songpu *shian* and Koreng *si*, whence the Naga *hi*. From the distribution of the very contracted forms *ui* or *wi* and *u*, they appear to be also referable to the Karen sub-formation. They are distinctive of Khyeng and most of the other Yuma dialects and of some of the adjacent Manipurian. The Khari and Silong *ui* may be from the Garo *kai*.

The Bodo *choi* (whence the Garo *kai*, Mrung *tchai*), appears to be related to the Anam, Ka and Chong cho, found also in Binua cho, *chuh*. The Karen, Yuma, Naga and Manipuri sibilant forms, *thwi*, *thu*, *su* &c., and the Nipal *chhyu*, *chu*, *chung*, *shu*, *zeu*, *cha*, show that the same variation of the guttural originated both to the westward, and eastward.

\* See Part I, ch. iv. sec. 2 on the special connection of the Mrung vocabulary with the Bodo and Garo.

† Brown's Voc. Probably the dialect is a mixed one. Pallegoix's Dict. does not give a labial synonyme.

The guttural prefix of the Nipal varieties and the nasal final of Sunwar show that they belong to the earlier forms of the Gyarung—Mishmi—Yuma band, represented by the Tiberkhad khui, Milch. kui and not to the emasculated Karen and Burman. The k prefix is still current in Mishmi, Kumi, Mon, Toung-thu and to some extent in Karen. In the Manipuri and Naga dialects the dental and palatal forms are more common, but ka is still current in several. (Champhung, Luhuppa, N. and C. Tangkhul, Koreng &c.).

The Anam, Ka, Chong and Binua cho belongs to the same era. As the Mon *ka-la* is exceptional, its proper application being to the *Tiger*, it is probable that it possessed a similar name for the *Dog* at one time.

### 3. Hog.

1. The full Bhotian form phag, phak, is found in the southern Bhotian vocabularies, phak Serpa, phag-*yo* Lhopa, in Limbu and Kiranti phag, in Chepang piak, Changlo phak-*ya* (Lhopa), Mikir phak.

The Horpa and Manyak forms in v, w—Horpa vah, Manyak wah, of which the older forms must have been vak, wak,—indicate that the most common Ultraindian forms were of Sifan derivation, and as some of them have *ta-*, *ka-*, it is probable that Gyarung had *ka-wak*, *ta-wak* or *ta-vak* before its proper Tibetan vocable was displaced by ki. It had not received ki when it spread to Ultraindia, for that form of the Chinese root is not found there. The Magar wak, Jili *ta-wak*, Singpho and Mrang wa, Rakhoing wat, Burman and Kyau wet, Khyeng wut, weak, Khyau vauk, Kumi and Khari Naga auk, Kumi au, Kami uo, Garo, Namasang, Muthun, Joboka and Sak vak, Mru *ta-puk* (? *ta-vak*), Nogaung, Mulung, Tablung and Tengsa ak, [? Songpu *gh-ak*], Khari auk, Koreng *ka-vak*, Champhung *a-vak*, Garo, Maram, Maring and Lungkhe wok, Kapwi bok, Luhuppa, Khoibu, N. and C. Tangkhul hok, S. Tangkhul and Manipuri ok, Angami and M. A. *tha-vo*, *the-vo*, Shindu vo, Sunwar po, Lepcha mon, Lau mu, Bodo *yo-ma*, *o-ma*, Dhimal *pa-ya* [comp. on-*hya* horse, *nho-ya monkey*, *mun-ha snake*, *hai-ya fish*, *khi-a dog*, *ji-ha bird*, *nar-ia elephant* &c.]. As Anam often changes the labial into the aspirate, its heo is probably from beo or weo (weuk Khyeng).

2. Mon *ka-let*, *ka-leik*, *k-lueit*, *k-lut*, Taying Mishmi *ba-li*, Mijhu Mishmi leh, Gurung *ti-li*, Daphla *a-rak* softened in Abor to *e-yeg*, *e-ek*, yuek [=Mon *lueit*], Kambojan *ch-rok*, *che-rak*, Chong *cha-rak*, Ka *chu-r*, Anam *t-ru*, lon. This application of the liquid root to the *Hog* is not Tibetan, and the distribution of the names shows that they belong to the peculiar Gangeto-Mon current. The broad forms ruk, luk, rok, rak, appear to be the originals, let, li, yeg, being characteristic of the later emasculated Gyarung-Mishmi phonology. They are connected with the Manipurian names for the *Elephant*, lok, loak, luak [=lueit]. A similar archaic form is applied to the *Monkey* in some Manipurian dialects and Silong, zak, lak, lait, rhu [=rhu *Cat* Gyarung]. The root is not a native Chinese or Mon-Anam one for the *Hog*. It is evidently of secondary origin, ancient as the *ferus* is. It is probably a contraction of one of the older names for the *Boar*, phag *ka-luk* &c.

The amplified vocalic forms applied to the *Buffaloe*, *Elephant* and *Monkey* in some vocabularies, lui, rui, ruai &c. appear to be contractions of forms like lueit, luak &c.

3. The Chinese root chu, chi, tu, ti, has been received by Karen tho, Toung-thu thau, Murmi dhawa, thau, and Deoria Chutia chu. The Anam

heo like the Gyarung *ki*, may possibly be a variation of the Chinese *chi*. Anam has also heo *kui*.

4. The Kasia *sniang*, (prob. *sni-yang*, comp. *shin-reh*), Nicobar haon, hown, appears to be connected with the nasal name for the *Horse* &c., but it must be left undetermined.

5. The Aka *kuk-pa*, is Hindi *khuk*.

Obs. The Ultraindo-Gangetic names are nearly all Tibetan. The Bhotian forms have a small range. The Ultraindian names appear to be Sifan, and mostly archaic, that is they were received before the loss of the guttural final. The Mon-Anam names are Tibetan and secondary, one being from a soft Angami form of a Manipuri variety of the root, and the other being the Tibetan liquid masculine qualitative in an archaic form. Anam may possibly preserve a native root, but it is probably Chinese. Karen has received the Chinese name and communicated it to Deoria Chutia and Murmi. This is one among many glossarial evidences of its pre-Burman influence, diffusion and Chinese relationship.

#### 4. GOAT.

1. (II.) The Bhotian *ra* is current in Serpa, Lhopa, Murmi, Gurung Magar and Changlo. Tiberkhad has *la* for the female. Allied forms are found in Garo *pu-run*, Muthun *ron*, Joboka *roan*, (whence the Mulung *yon*, Tablung *yun*), Maring *k-lang*, Kasia *b-lang*, Singphu *pai nam*, Anam *hoi nam* (*hoi=boi, pai*), Lungke, Kumi *ke-l*, Kyau *ke-rat*, *kie-ar*, Mru *ta-rau-a*, Limbu *men-da*, Garo *do-bak* (Brown), Anam *de*. The liquid is clearly the masc. root. It is current in the same forms as a sex word, and in the names of other animals.

2. (III.) The Bhotian *chang*, Horpa *chhe*, Thochu and Manyak *tsah*, Gyarung *ku-so*, are found in Anam *su hoi*, (= *su boi*), Abor *shu-ben*, *so-ben*, Aka *sha-bam*, Kumi *su-be*, Kami *tso-be*, Lepcha *sa-ar*, Kiranti *chheng-ar*, (Bhot. *chang-ra*), Newar *cho-le*, Sunwar *cha-r-sye* [See *Cow*], Chepang *mi-cha*, T. Mishmi *ma-dze* (Brown), Songpu *zyu*, Burman *she-ih*, *tshi-et*, *chhi-t*.

The Anam, Abor, Newar, Kumi, Kami and Songpu forms in *u, o*, resemble the Gyarung *so*. The Aka, Chepang, Lepcha and Sunwar *sha, sa, cha* adhere to the Bhotian, Thochu and Manyak vowel. The Kiranti, Taying Mishmi and Burman have the *e* of Horpa. But these variations are too slight to warrant any inferences, save that *u, o*, is probably the older form.

3. (I.) The labial root is very prevalent as a name for the *Goat*, although it may have originally been a contraction of Tibetan forms in which the sex definitive was conjoined with the root, as in the Bhotian *ra-ba, ra-ma, Changlo ra-ba*. The Abor *shu-ben* and the cognate terms may be the sibilant Tibetan root with a similar postfix. Mijhu Mishmi *ham-pai*, Singfu *pai-nam*, Taying M. *ma-bie*, Bodo *bur-ma, bor-ma*, Tenga and Nogaung *na-bung, Khari na-bong*, Mrung *pun*, Manipuri *ka-méng*, Koréng *ka-mi*, Maram *kha-mi*, Luhuppa *me*, Champchung *a-mu*, N. Tanghul *mi*, C. T. *mi-k-re*, S. T. *ma-k-re*, (*k-re* male postf.), Kumi *me, mée*, Khyeng *me, ma*, Pwo Karen *bhe, Mikir be, bi*. In some of these terms the labial retains a qualitative power. Sak *ki-bi*, Mon *kha-bhai, kha-pa*, Toung-thu-bay, *ta-byu-pai* (Cat *ngwai-pai*), Bongju *woi, Kuki*

hui, Anam su hoi, hoi nam, \* Lau pa, pe, Ahom pe-nga, Deoria Chutia li-pe—du-ru, Kambojan po-pe, Silong pet.

The labial is not used in Tibet as a name for the *Goat*, the only true Tibetan radical name being the sibilant (2). These labial names are obviously of secondary southern origin. The various forms are simply the different current modifications of the labial masculine root, and most of them are also used as names, or elements of names, for the *Cat*, *Cow*, *Buffaloe*, *Elephant*, *Horse* and *Monkey*. Many of the dialects that use the labial for the *Goat* retain the proper sibilant root of Tibet for the *Cow*, and in forms and combinations identical with those current in other southern dialects, or in Tibetan, for the *Goat*. Thus Tengsa, Nogaung and Khari have *na-bung*, *na-bong* for the *Goat*, but *na-si*, *na-si*, *ma-su* for the *Cow*. The same remark applies to the liquid qualitative. Thus while Kyau and Kumi have only *ke-ar*, *ke-rat*, *ke-l* for the *Goat*, they retain the Tibeto-Gangetic forms *cha-ra*, *si-ra*, *tsi-ya*, *sha-rh*, as names for the *Cow*.

6. The Chinese yeong, yong, yang, yu of shan yeung, tso yeung, shan yang, tsau yang &c. (*sheep* min yeung &c.) appears to be found in Anam du-ong, thi-ung, (Brown). The common native term is de.

4. Jili ta-khyen, Namsang kien, Kapwi ken.

5. Khoibu hing-ngau.

6. Angami te-nu, M. A. ta-nu. This appears to be the fem. root used substantively. The Burman nua, nwa *Cow* (Chinese) has some resemblance to it.

*Obs.* The Ultraindo-Gangetic names that are similar to the Tibetan do not appear to have been derived from any single Tibetan dialect. They reproduce all the Tibetan forms, and must be considered very archaic. The Bhotian secondary form ra is only found in the Himalayan vocabularies, in which it is probably modern. The Kiranti chheng-ar is the full Bhotian name slightly modified, the vowel being similar to the Horpa chhe. The prevalent sibilant in the south is probably Sifan. The paucity of names containing this root is remarkable when its persistence in all the Tibetan dialects is considered. From the great phonetic range of the labial names, the peculiarities of some, and the serviles annexed to several, it appears that the labial became current as a substantive name for the *Goat* at a very early period, and in dialects that acquired great influence. The sibilant root, in the names in which it survives, has the labial masc. postf. in the forms mi, ma, be, ben, bam. With mi Chepang, and be Kumi, Kami, ben Abor, the prevalent Manipurian mi, me, meng, Yuma me, bi, Taying Mishmi bie, Mikir be, bi, Karen bhe, correspond, so that all may have been derived from one East Gangetic dialect. The Naga bung, bong, is probably related to the Aka bam, and it appears to have been the original of the Bodo bur, bor, the older form of which is preserved in the Mrung pun. The Mijhu and Singpho, Mon, Tungthu and Yuma pai, is a distinct form, perhaps derived from Tibet by the Irawadi route, like other peculiar Sifan—Irawadi vocables. It occurs in Thochu in the form wai (Monkey wai-si), and in all the forms in other Ultraindian names.

The Lau and Kambojan names appear to have been derived from the Karen-Yuma me, be.

\* So the Arung Naga name of the Mi-thun, bui saug (*buffaloe* gu-bui) is hui in Angami.

## 5. Cow.

I. (a.) The Bhotian *ba, lang*, are found in Lhopa *bha, cow, lang, dang bull*, Tiberkhad *ba-lang, rad*, Milchanang *lang*, Lepcha *lông, Changlo wa*.

In the slender form it is found in Sgau Karen *go pi*, Dhimal *bi-a, Sunwar bi*, Lepcha *bik*, Limbu *bit, ye-pi*, Kiranti *pit*, Murmi *mhe, mih*, Gurung *myau, Bengali ga-bhi*.

In some of these vocabularies as in Bhotian the labial has become a substantive term, or it was originally received into them as such. In most of the Ultraindian dialects it is conjoined with proper substantive names, and has either a sexual or a definitive force. As our information respecting these vocabularies is too scant to enable us to distinguish those cases in which its sexual meaning is still recognized, from those in which it has become a mere definitive, and as it is current with both functions in Bhotian and several other languages of the family, I have in all cases italicised it, in order to give greater prominence to the substantive names. The forms *ma, mi, mu*, appear to be always feminine. *Ba, pha, bo, bu* are masculine. But as the two forms of the labial are easily interchangeable, masc. forms such as *pha* become fem. in some dialects, and fem. become masc. *Boi, woi, bi, wi, wa*, would be masc. if the Bhotian masc. force of *b, p, w*, were preserved, but in some cases they appear to be fem. The *i* may have a fem. power in some Arianised vocabularies, as in Kasia.

(b.) The Manyak form *we-mi* may possibly be directly connected with the Shan *wo, woa, Anam bo, Tèung-thu po, Mon e-won-ban, Sgau Kareu a-mo*.

A similar form is applied to the *Goat mu, woi, po-pe, Buffaloe moh, Elephant mon, vu, mu &c., Hog vo, po, mon, mu*.

(c.) A consonantal guttural form occurs in Maring *muk*, Manipuri and Tangkhul *sa-muk*, Champhung *she-muk*, Luhuppa *si-muk*, Sak *tha-muk*, Khoibu *na-muk*. In these forms the sibilant is the def. pref. Comp. in Manipuri, *sa-muk cow, sa-mu el phant, sa-gol horse, ha-mung goat*.

The same form is applied to the *Horse* in Maring, Khoibu, S. Tangkhul and Lungke *puk, phuk*, and Namsang *mok*, and to the *Elephant* in Namsang *puok*, Singpho *mag-wi* (Manipuri *sa-ma, Champa ta-mun*).

(d.) Namsang *man*. The same form is used for the *Horse* in Muthun *man*, and Joboka *mang*.

II. (a.) The Bhotian *chuk of pha-chuk* is found in Serpa *chu-ma, Taying Mishni man-chu, ma-chu, ma-tsa-kru*, (masc.) Abor *sou, Pwo Karen tshu-men, Bodo ma-shu-jo, Garo ma-shu, Mrung ma-chau, Khari wa-su, Angami and M. A. mi-thu, Tablung and Muthun ma-hu, Joboka mu-hu, Mulung ma-hu-nyu* (fem.) Ahom *hu, Singpho kan-su, Anam sung-krau, \* Lungke tcho*.

b. The *a* and *i* forms of Thochu *zya (bull)* and Manyak *nga-zi (bull)* are found in Aka *shye*, Abor *sha-me, Chepang ma-shya, Newar sa, Changlo ja-ba, Nogaung na-si, Tengsa and Kasia ma-si, Khyeng shya Kumi tsi, Kyau cha-ra, Kumi si-ra, Mru tsi-ya, Khyeng sha-ryh*.

The forms with the liquid masc. postfix are similar to some of those for the *Goat, chang-ra, Bhot., chheng-ar Kiranti, sa-ar Lepcha, cha-rye Sunwar, cho-le Newar*.

The same roots appear to be contained in Arian names for the *Bull* *bri-sha, shanr, Goat chha-gal, chhag, aja*.

\* Brown's dialect.



3. (III.) Songpu *moi-tom*, Kapwi *tom*, Koreng *ma-tom*, M'ram *a-tom*.

4. (II.) The liquid probably retains its sexual function, in the Taying Mishmi *ma-tso k-ru* (*ka-ru* is the current term for male), Anam *sung-krau* (Brown), Kyau *cha-ra*, Kumi *si-ra*, Mru *tsi-ya*, Khyeng *sha-rh* [Goat *sa-ar* Lepcha], Mikir *cho-rong*. In the Mon *ka-rau* and Karen *k-lo* (Brown) the qualitative has become substantive, as in the similar names for all the other animals in our list.

The *Gyal* is termed *shial* (=shi-*al*) by the Kukis. The Asl *Gyal* of the Bengalis is also called *se-loi*. See *Buffaloe*.

5a. The Chinese root in the Horpa *ngau-me'*, Thochu *gwa*, Manyak *nga-zi*, is found in several of the southern languages, but it appears to be a direct Chinese importation. The Lau race have spread it to the northward and probably also communicated it to the Karens, Burmans, Jilis and Lhopas, the Lhopa form being the same as the Khamti. Lhopa *ngo* (generic), Khamti *ngo*, Siam *ngua*, *ngoa*, Jili *ta-nga*, Burman *nua*, *nwa* [*nwa-mo*, whence the Sgau Karen *a-mo Cow*, *nwa-pho*, *nwa-boh bull*], Kumi *kha-boi*. Comp. *nim-boi cat*.

5b. The Chinese masculine qualitative *ku*, *kung*, is found in Siamese applied to the *bull kho*. The Karen *go* and Kambojan *ku* generic are referable to it.

5c. The only Sifan forms of the Chinese that has spread south is the slender *Gyarung nye-nye* found in Magar *nhet* (final *t* as in the adjacent bit).

Obs. The Bhotian *ba* and *lang* have the usual limited and modern diffusion. They are only found in the southern Bhot. dialects and some of the conterminous ones.

The slender form is the Manyak variety of the Tibetan masc. labial *bi*, *mi* (occurring also in Thochu), and it was probably derived by an east Gangetic vocabulary from a Sifan dialect before the native names were replaced by Chinese. It has a very limited range, Dhimal-Nipal. In Sgau Karen it appears to retain its proper qualitative function.

The Mon-Anam, Sgau Karen and Toung-thu *wo*, *bo*, *mo*, *po*, *won*, form a well marked group. Its sources may have been the Manyak *wo-mi*, whence it might be communicated to a southern Mon-Anam or Karen dialect. But as the masc. qualitative has the same forms in Ultraindian names for the *Bull* and is one of the old Tibetan forms having a general application, this is doubtful. Comp. the Burman *nwa-mo Cow*, *nwa-pho*, *nwa-boh Bull*, Siamese *ngua tua phu* or *po Bull* &c. The Karen name *a-mo* is probably a contraction of a term similar to the Burman *nwa-mo*. The form *mo* is the Karen name for *Mother* and *po*, *pu Man* (generic). The most probable inference is that the Anam *bo* is a comparatively late derivative from the Irawadi province, (Toung-thu—Karen).

The Manipurean *muk* is a purely local application of the qualitative.

The true Tibetan root *chuk*, *chu*; *zya*, *zi* has a wide currency. The Bhotian form probably prevailed in Sifan also before it was replaced by Chinese terms, as although found in Serpa it is absent in Lhopa, Changlo and Takpa, and could not therefore have been communicated by them—at least in their modern condition—to the east Gangetic tongues, Mishmi, Abor. From this group it has spread to the Bodo, Garo and Naga vocabularies. The Singpho *kan-su*, distinct in form and with a *Gyarung* prefix in place of the Abor-Mishmi *ma-*, also favours a direct Sifan origin. Lastly forms similar to the Thochu *zya* and Manyak *zi* are found,

along with *chu*, 'tso in the east Gangetic group, *shya*, *sha*, *ja*, *shye*,—in Naga *si*,—and in the Yuma gr. *shya*, *sha*, *cha*, *si*, *tsi*. It is probable that the Abor-Naga broad form was received into the east Gangetic vocabulary from one of the earlier Sifan streams, and the Abor-Yuma from one of the later, after the slender phonology prevailed in east Tibet.

It is clear that the sibilants used for the *Goat* and *Cow* in the Himalaic glossary are forms of one root. The same variations are applied to both animals, *shu*, (with the variations *zyu*, *so*, *tso*, *cho* for *Goat*, and *su*, *thu*, *hu*, *tso*, *tcho*, *sou*, *chuk*, *chu*, for *Cow*), *cha*, *sha*, *sa*, (also for *Cow* *ja*, *sha*, *shya*, *zha*, and for *Goat* *chang*, *tsah*); for *Goat* the slender *tshi*, *chhi*, *chhe*, *dse*, *she*, *chheng'* and for *Cow* *zi*, *si*, *shye*.

The two animals were therefore referred to the same species in the primary Himalaic zoology, and they were probably distinguished either by the forms of the sex qualitatives or by separate attributives, descriptive of size, colour or other distinctive qualities, as in several of the Chinese names of animals. In the gradual concretion of the glossary in each dialect, each variety of the root would become a substantive name, rendering qualitatives and definitives superfluous; and in like manner, varieties in the qualitatives and definitives, on acquiring an independent substantive meaning, would render the older substantive roots in the compound redundant and sometimes cast them off. For example in Bhotian the *ra* form of the masc. qualitative, may have become distinctive of the *Goat*, and the *lang* form of the *Cow*; and when the sibilant substantive name itself took the two independent forms *chang* *Goat* and *chuk* *Cow*, distinctions in the qualitatives were no longer necessary. In the latest stage of concretion and metamorphosis all these forms, *chang*, *chuk*, *lang*, *ra*, have acquired distinct substantive applications.

The Manipurean *tom* appears to be a local modification of the sibilopalatal root, from the form *thu*, Angami *tcho* (Lungke) &c. found in adjacent dialects. The same variety is used for the *Elephant* in Mishmi *da-ton*.

The Ultraindo-Gangetic names for the *Cow* and *Bull* of Chinese derivation appear to have been first acquired by the Lau tribe, and to have been communicated by them to a few of the other vocabularies, when they spread to the west and south.

## 6. BUFFALOE.

1. (III.) The Bhotian *ma-hi*, *ma-he* Lhopa, Lepcha, Murmi *ma-hi*, Serpa *me-shi*, Sunwar *me-sye*, Newar, Deoria Chutia *me*, Gurung *ma-i*, Magar *blain-sa*, Taying Mishmi *ma-ji*, Mrung *ma-shi*, N. and S. Tangkhul *shi*, appear to be Arian, Sanskrit *ma-hish*. But although the Buffaloe with its name appears to have been carried from India to Tibet, the name is probably pre-Arian and Himalaic in India. If the Arians found the Buffaloe there, they would be likely to adopt the native name. That *ma-hish*, *ma-shi*, &c. is Himalaic can hardly be doubted when it is compared with the corresponding Himalaic names for the *Cow*, *ma-shya*, *ma-shu*, *ma-hu*, *ma-si* &c.

2. (II.) (c.) M. Mishmi *ta-loi*, Jili, Champhung *nga-lui*, Mikir *che-long*, *ja-lang*, Muthun *loi*, Joboka *lue*, Maring *lui*, Manipuri *i-roi*, Songpa *woi-roi*, Kapwi *sa-loi*, Luhuppa *si-loi*, S. Tangkhul *se-lui*, [se-loi is applied to the Asi Gyal in Chittagong], Koreng *a-lui*, Maram *a-ghoi*, Angami and M. A. *ra-li*, Khoibu *ra-loi*, Kyau *cha-la-ve*, Bongju *f-se-loi*.

This is the common liquid masc. root. The form *loi* probably spread southward from one Himalayan dialect (Mishmi or Singpho) to the Manipuri-Yuma vocabularies, in which it prevails, or from a southern dialect northward. As similar amplified forms are found in the Yuma group and Mon applied to the *Hog* leuk &c. and *Monkey* h'lait (Kumi) it may have spread from this group to Manipuri and thence to the Irawadi and northward. The liquid element in the name of the *Horse* (whatever its etymology may be) takes the same form in Kasia, kalai and Bodo korai, gorai. The Kambojan name for the *Elephant* has a similar form *tam-rai*, Chong *ku-nai*, but this appears to be a derivative from the Irawadi *ta-loi Buffaloe*. The form is probably of western Irawadi origin.

(b.) Anam *k-long-nuk*, (Mikir *che-long*) Sak *k-ro*, Ahom *kh-rai*, Lau *kh-uai*, Burman *k-ywai*, *k-wye*, *k-yue*, Kambojan *k-ra-bu*. From the Ahom, Sak and Kambojan forms the original appears to have been a form of the masc. qualitative similar to (a), *rai* &c. with the guttural prefix in place of the *ng* or *t* of the north Irawadi (Jili, Mishmi). The Kambojan combination is similar to the Kyau *cha-la-ue*. In Sec. 11 of ch. V. I considered the Kambojan name to be Dravirian. It, as I now think, it is Himalaic, the question arises whether the Dravirian *karan*, *karavai* is not itself Himalaic.

(c.) Namsang *le*, Kasia *shin-reh*, Mon *pa-ren*, *p-riang*, *p-yen*. Similar slender forms occur for the *Goat* in Karen and Newar *le*, C. and S. Tangkhul *re*, Anam *de*; for the *Elephant* in Kambojan *re*; for the *Hog* in Mijhu Mishmi *leh*, and Mon *let*; and for the *Horse* in Abor, Burman *re*. The modification belongs to the later Sifan-Irawadi current. The Manyak *ding-mi* is perhaps connected with these forms.

3. (III.) (a.) Aka, Dophla *men-dak*, Abor *men-zek*, *men-jeg*, Mulung, Tablung *tek*. Possibly this is an archaic form of the liquid masc. root similar to *rak Hog*, *rat Goat*, *lok Elephant*, and *lak*, *nak Monkey*. But it is closer to an archaic form of the dental and sibilant preserved in names for the *Tiger* *tak*, *jik*. In the Bhotian *u* form of the same root as applied to the *Cow* final *k* is preserved, *chuk*.

(b.) Tengsa *tyang*, Nogaung *chang*, Tengsa *chang*. This is the form of the sibilant root found in the Bhotian *chang Goat*, Murmi *chyan Tiger*, Lepcha *tyan Elephant*.

4. (I.) (a.) Deoria Chutia *me*, Assam *moh*, Garo *mat-ma*, Khari *a-pang*.

(b.) Limbu *sa-wet* (Burm. *wet Hog*), Kiranti *san-wa*.

5. Anam *ngiu*, Singpho *nga*, Jili *nga-lui*, Lungkhe *na*, Khyeng *nau*, Kumi *pa-noh*, *pa-no*, *ma-na*, Karen, Young-thu *pa-na*, *pai-nai*. With the exception of the Anam *ngiu* these forms appear to be all variations of the north Irawadi *nga*, which is identical with the Manyak form for the *Cow*.

Obs. No distinctive root for the *Buffaloe* occurs amongst the various names. They are the same substantive and qualitative roots that are used for the *Goat*, *Cow* &c. Some well marked groups exist. The Gangetic form, including the Sanskrit and Bengali, is the archaic Himalaic name for the *Cow* (*ma-chu*, *ma-su*, *ma-hu*, *ma-si* &c.). If any qualitative originally distinguished the *Buffaloe* from the *Cow* it has been lost.

Another group is the large Irawadi one in which the masc. liquid root has been diffused in the form *loi* &c. from some single dialect.

A second and smaller Ultraiidian group presents the same root in a

later or slender form. It appears to be an Irawadi form (Mishmi—*Mon Hog*), and was probably communicated by *Mon* to *Kasia* and by *Kasia* to *Nogaung Naga*.

The *Abor* group preserves the substantive root in an archaic Tibetan form and the *Nogaung* and *Tengsa* forms appear to rank with it. These forms were probably used originally for the *Goat* and *Cow* in the east Gangetic dialects.

The labial names, with one exception, are confined to *Assam* and its borders. They appear to be remnants of the old Gangetic *ma-hish*, *me-shi* &c. (*Nipai*), the *Deoria Chutia me* being identical with the *Newar*. The *Limbu sa-wet* and *Kiranti san-wa* appear to be archaic, for they have the qualitative postfixed and not prefixed as in the prevalent concreated Gangetic word.

#### 7. ELEPHANT.

1. (II.) (a.) The *Bhotian* wr. and com. Tibetan *g-lang-chen* is *Lhopa lang-chen*. The sp. *lang-do-chen*, *Horpa la-mo-chen* is *Serpa lang-bo*, *Murmi lung-bu-chi*, *Changlo lang-pe-hi*.

(b.) *Anam ti-rang*, *Kambojan tam-rai*, *dum-re*, *Chong ka-nai*, *Ka ruai*. *Muthun loak*, *Joboka luak*, *Mulung*, *Tablung lok-niu*, *Burman a-ne*, *Rakhoing nin*, *Kyau ni*, *Kasia ing-nar*, *Dhimal nar-ia*.

2. (i.) *Mijhu Mishmi man-yong*, *T. M. amiang*, *Garó mong-ma*, *Singpho mag-wi*, *Namsang puok*, *Manipuri sa-mu* (*Cow sa-muk*, *horse sa-gol*, *goat ha-meng*), *Songpu woi-pong* (*cow woi-tom*, *buffuloe woi-rhoi*), *Kapwi tu-pong*, *Koreng cha-pong*, *Maram m-pong*, *Luhuppa ma-vu*, *N. Tangkul ma-phu*, *Anam woi*, *woi*, *Champa ta-mun*, *Khying mwi*. These are similar to forms of the masc. labial current as names for the *Cow*, *Goat*, *Hors.* &c.

(b.) *Garó na-p-lo*, *Champhung p-lo-bi*.

(c.) The slender form is applied in *Mon* to the *Buffuloe p-ren* &c. Comp. also *Songpu woi-roi*.

3. (III.) *T. Mishmi da-ton* (Brown), *Lepcha tyan-mo*, *teng-mu*.

4. The Chinese *siaang*, *tseung*, *siong*, *ch'hio*, *sio*, *tiang* is found in the *Lau* dialects *chiang*, *tsang*, *sang*, *Jili tsang*, *Burman*, *Mon shen*, *Mon chuein*, *Rakhoing sau*, *Kyau sang-hung*.

5. (III.) The *Karen ka-tsho*, *An-gami* and *M. A. tsu*, *S. Tangkul*, *Maring sai*, *Khoibu ka-sai*, *C. Tangkul sa-ka-tai*, *Shindu mu-shey*, *Kumi ku-shai*, *Lungke tsai*, *Newar* and *Chepang ki-si*, may either be Chinese or Himalaic. The form of the root, the prefixes, and of the range the terms appear to show that some of them are native application of the root for *Cow* &c.

6. The Sanskrit *sita*, *site* is current in *Abor*, *Sunwar* (*soda*), *Tengsa suti*, *Nogaung shiti*, *Khari sati*. Both this term and *gaja* (=ga-ja) appear to be Himalaic.

7. The *Hindi hati* is used in *Aka*, *Bodo*, *Limbu*, *Kiranti*, *Murmi*, *Magar*, *Gurung*, *Mikir*.

8. *Sak u-ku*:

Obs. The Tibetan *chen* is probably of modern Chinese origin.

The most common native term is the masc. Himalaic labial, in the archaic *u, o* form (*Bhot. po, bo, bu* &c.). The *-k* forms appear to be very ancient, resembling those for the *Hog*. The nasal were probably formed from them.

The *Anam woi*, *woi*, is the *Songpu* prefix with the root elided.

The Naga loak, lok, is a remnant of an archaic masc. form. Similar forms survive in names for the *Hog*, and this may indicate a special connection.

## 8. HORSE.

1. (III.) (a.) The Bhotian *r-ta*, *ta*, Takpa *té*, is current in Serpa, Lhopa and Murmi *ta*, *tah*, *tha*; and the Tiberkhad *shang*, *shung*, is the same root. Karen *ka-the*, *ka-se*, *thi*, Khyeng *tsa*, Kyau *sha*, Kambojan *se*.

2. (II.) The *ro*, *bo-ro*, *b-ro* of the Sifan dialects, *rhi*, *ryi* of Horpa, is the most common Ultraindo-Gangetic name,—*bu-re* Abor, *sa-la* Newar, *se-rang* Chepang, *rang*, *run*, Milchanang, *kam-rang* Singpho, *m-rang*, *m-yen* Burman, *rang* Kyau; Mishmi *ga-re*, *g-rue*, Abor *gu-re*, Teirsa *ku-ri*, Nogaung *ko-r*, Khari *kung-ri*, Angami *ki-r*, M. Angami *che-kwi-r*, Manipuri, Champhung *sa-go-l*, Koreng and Maram *cha-kon*, Songpu and Kapwi *ta-koan*, Kumi *kaungo*, Luhuppa *si-kui*, N. and C. Tangkhu *sa-koi*, [Rakhoing *k-ray*, Burman *k-re*, Mon *k-yeh*, Kasia *ka-lai*, Bodo *ko-rai*, *go-rai*, Kiranti, Magar, Gurung, Sunwar, Bengah, Hindi *gho-ra*, Chango *ko-r-ta*, (*ta* 1), Sindhi *go-ri*, Kashmiri *gu-ri-ri*, Tirhai *ku-ra*.]\*

3. (I.) Maring *puk*, Khoibu *sha-puk*, S. Tangkhu *sa-puk*, Kumi, Lungke *ka-phuk*, Namsang *mok*, Muthun *man*, Joboka *mang*, Mijhu *Mishmi kom-beng*. (See *cow*, *elephant*, *hog*).

Tablung and Mulung *ko-wai*.

4. Dhimal *on-hya*, Lepcha, Limbu *on*. (? 2).

5. The Chinese *ma* is current in the Lau dialects and in Anam.

## 9. TIGER.

1. (III.) The Bhotian and Horpa *tag*, *tak*, is Lhopa *tah*, Serpa *jik*, Milchanang and Tiberkhad *tar*, *thar*.

2. (II.) (a.) Abor *si-mio*, *su-myo*, T. Mishmi (*Cat*, *si-mi* Bhot.).

(b.) Bodo *mo-cha*, *mi-sah*, *ma-sa*, Garo *ma-tsa*, *ma-cha*, Sunwar *gu-p-sa*, Chepang *ja*, Karen *bo-thao*, *bo-sa*, *bo*, Jili *ha-sa*, Namsang *sa*, Mulung—Tablung *sah-nu*, Joboka *cha-nu*, Muthun *chia-nu*.

(c.) Lepcha *su-thong*, *si-tong*, Newar *dhun*, Murmi *chung*, *chyan*, Gurung *chen*. This is an archaic form for *cat* Manipuri *gr. tong*, *tung*, *tu*, &c., Magar *thu*, Horpa *chu*; and the Maram *tok*, Anam *sok*, show it to be a variation of the Tibetan *tak*, *tag tiger*.

(d.) Anam *ho*, *ong-kop* (Brown), Lau *su*, *sua*, Maring *hum-mi*, Songpu *kam-hang*, S. Tangkhu *ham-pu*, Khoibu *hou-pwi*.

3. (IV.) (a.) The guttural root (primarily applied to the *dog*) is very common. Tengsa *khu*, Khari *a-khu*, Angami and M. A., Kapwi *ta-khu*, Koreng *chu-kwi*, C. Tangkhu *sa-kwi*, Maram *khu-bui*, Champhung *a-khu-bi*, Luhuppa *sang-khu*, N. Tangkhu *sa-khwu*, Shindu *chu-kom*.

Nogaung *kayi*, Manipuri *kui*, Kumi *t-kai*, *tu-kae*, *ta-gain*, Kyau *kieh*, Lungke *tchek-ke* (? *che-ke*), Mikir *ti-ke*, Limbu *ke-va*, *ke-ba*, Kiranti *ki-wa*, Sunwar *gu-p-sa*, Anam *ong-ko-p* (Brown), Ka *dea*.

Silong *p-nuk*.

4. Chango *kai-la*, Kambojan *k-la*, *ki-la*, Mon *k-la*, *k-ya*, Kasia *k-la*,

\* Many of these names are evidently Scytho-Dravirian (Hindi.) and not Scytho-Himalaic, but it is difficult to draw the line. Those within brackets appear to be Hindi. See ch. v sec. 11.

Magar rang-hu, Singpho sa-rong, Lau si-ra, Burman ni-ra, Chong ro-wai. (See *Dog*).

## 10. MONKEY.

1. (a.) (II.) The Bhotian wr. *s-p-re-bu*, Gyarung *she-p-ri*, Takpa *p-ra*, is current in Lhopa *p-ya*.

(b.) Serpa rhu, [*ta-rhu Cat* Gyarung], Chepang yukh, Kumi h'lait, Bodo mo-hha-ra, Garo ma-kh-re, Silong k-lak, Muthun mai-nak, Joboka me-nak. Toung-thu *tau-lam*, Lau gr. ling, Kasia *sh-ri*. The Newar mako is probably derived from the Bodo mokhara.

2. (III.) The sp. Bhotian tyu, Horpa zum-dé, Thochu *mai-si*, is found in Mulung and Tablung *si-mai*, Tengsa su-chi [*Elephant*, su-ti], Changlo ja-la, Kiranti he-la-wa, Nogaung *shi-tsu* [*Elephant shi-ti*], Khari ki-sha, Kapwi, Maram ka-zyong, Koreng ta-zyong, Manipuri, S. Tangkhul yong, Maring yung, Luhuppa, N. & C. Tangkhul *na-yong*, Khoibu *ha-yong*, Khyeng, Lungke yaung, Burman *m-youk*, Kyau juang, Kambojan sua.

3. (I.) The labial root is found in Mijhu Mishmi muh, Taying Mishmi *ta-mium*, Gurung *ti-myu*, Murmi mang, Hindi *mai-mum*, Drav.-manga, mange, Sunwar mora, Lepcha sa-heu, Anam wun (Brown), Abor *si-bie*, *si-be*, Aka *le-be*, Singpho we, Jili *ta-we*, Namsang veh, Garo *kon-we*, Limbu *so-ba*, *cho-ba*, Mikir *hi-pi*.

5. Angami and Mozome A. *te-kwi*, Songpu *a-koi*, Anam khi. The same forms are used for *dog*, *gout*, *tiger*, *horse*.

6. Mon *ka-nwe*, Dhimal *nho-yu*.

## 11. FISH.

1. Nga, nya (Bhot., Takpa) is very common in the southern vocabularies. The Gyarung form *ngyo* occurs in Abor *e-ngo*, Tengsa and Nogaung *a-ngu*, Kumi, Khyeng *n-ro*, Kyau ngwau. The Angami *kho*, Mikir *o-k* are related to these. The change of *ng* to *k* is common to Angami with several of the Manipuri dialects *kha*, *khai*, *cha-kha*, *a-khai*, *khi* &c. with Anam, Mon and Nicobar *ka*, and Kasia *do-kha* (*o-k* Mikir). The loss of the nasal occurs in Pwo Karen,—Sgau *nyá*, Pwo *ya*.

2. *izhá* Thochu. This Scythic word is only found in one of the published Gangeto-Irawady vocabularies, but it is Indonesian. The Magar *she* of *di-she* has the same root.

3. *yu* Manyak. Chinese *yu* Kwan-hwa, *yue* Gyarung.

The Gyarung usage of preposing the word for *water*—*chu-nygo*—is an archaic Asiatic one, Scythic, Semito-African &c. It is preserved by Magar *di-she* (*di water*). See also *Snake*.

The Murmi *tar nya*, Gyarung *tan-nga* appears to have the dental prefix in one of its Gyarung forms.

The Taying Mishmi *tan*, *ta*, may have lost the root, or only preserves it in the *n*, *ta* being a common pref. in this vocabulary. The Toung-thu *da-dan*, Mru *dam* are evidently related to *tan*, and suggest its being a form of the *la*, *ran* root.

Lau reverses the Tibetan application of *nga*, *ngo*, *ngu* and *la* &c., using the former for *snake* and the latter for *fish*, *p-la* Ahom, Siam, *p-la* Khamti, Laos. The Kambojan group has the same root for *fish*, *t-rau*, *t-rai*, *t-rei* Ka-mer, *t-re* Chong, *me-l* Chong. Anam follows the Tibetan usage *ran*, *snake*, (*t-ran boa*). The a form of the root is peculiar to the Mon-Anam group—the Tibeto-Burman having *u*. It is probably related

to a Manipuri form, *ma-run* Kapwi, *phu-run* Khoibu, the normal form being *ru*. The Anam luon *eel* is a similar form. The Mru form *ta-roa* resembles the Kambojan. The *l, r*, root appears to be that for *river, water*, in archaic forms. See *Snake*.

## 12. SNAKE.

1. The broad *wr*. Bhotian *s-b-ru*, Manyak *b-ru*, Serpa *d-ru* (whence *d-eu* Bh. sp., *b-eu* Lhop. Lep.) is preserved in Takpa *m-ru*, Mikir *phu-ru*, *pho-ru*, Maring *ph-ru*, Khoibu *phu-run*, Kapwi *ma-run*, Tengsa *pha-lu*, Luhuppa *pha-ru*, N. T. *ph-ru*, C. T. *ph-ru*, Kuki *ru*, Lungke *ru*, rui, Sakhoing *m-rwi*, Kyau *m-ru*, *m-yuk*, Burm. *m-ywe*.

Anam *ran, t-ran, (eel luon)*, Mon *tha-run*, Mru *ta-roa*, Singpho *la-pu*.  
Champhung *ri-nam*, Maram *sa-na*, Koreng *ku-nu*, Moz. *thi-nhye*, Yerukala *tu-na*.

Manipuri *li*, Champh. *ri-nam*, S. Tangkhul *ma-ri*; (*tu-li* *river* Maring, *ri water, nam water, river*).

2. The labial is found in Dophla *ta-bug*, Aka *ta-buk*, Garo *du-pu*, Deoria *du-bu*, Gadaba *bu-du-bu*, Bodo *ji-bou, ju-bu*, Dhimal *pu-nha*, Taying *ta-bu*, Sak *ka-pu*, Singpho *la-pu*, Namsang and Mulung groups *pu*, Nogaung *pu-r*, Magar *bu-l*, Khari *a-hu*, Angami *tho-fa*, Kumi *pu-wi*, Khyeng *pwa*, Mrung *tse-bu*, Sunwar *bu-sa*, Murmi *pu-ku-ri*, Gurung *bhu-gu-r*, Abor *ta-bi*, Garo *cha-pi*, Newar *bi*, Kol biing, Kamboj. *po-s* (Sunwar).

S. Dravirian *pa, ba* (root).

3. Mijhu *zhu*.

4. M. Kumi *ma-khui, ma-kwi*, S. Karen *gu*, P. K. *w-gu*.

5. Limbu *o-sek*, Kir. *pe-cham*, Savara *ja*.

6. Gond *ta-ras*, Kondh *so-raso* (prob. 1 with a postf. *sa-ra-so*, comp. *ran* Anam, *bu-sa* Sunwar).

7. Lau *nga, ngu*. (See *Fish*).

All the names for *snake*, with the exception of 2 and 7, appear to be forms of the common roots for *river, water*, *ru* being an archaic form; that is, the root has been lost, and the descriptive or qualifying word only preserved, as in many other current vocables, including names of animals. The Tibetan root was probably the labial, the forms and distribution of which show it to be radical, and not merely the Tibetan prefix with the *r* root elided. The Murmi *puku-ri*, Gurung *bhagu-ri* (*ta-bug* Dophla), are examples of an archaic form of the root, followed by the form of the liquid root for *water*, common to Burman, Magar &c. The Singpho *la-pu* may be a similar combination. In the Garo *du-pu*, Gadaba *bu-du-bu*, Yerakala *tu-na, du, tu* may be *water* and not merely a prefix.

## 12. BIRD.

1. *a*. The old Bhotian *byu* is now an exceptional form. It is preserved in Indonesia, *pio* Sambawa. The *a* form is found in Lhopa *bhya*, Takpa *pya*, Taying *m-pia*, Milchanang *piu, pea, piatsh*, Murmi *ni-mya*, Newar *u-mya*. The Gyarung *pye-pye* is the only slender Tibetan form. Comp. *weng* Kapwi.

With the old Bhotian form are connected the Singpho *wu, Naga the-vo, vo, o*, Kumi *ta-wu*, Limbu *bu*, Lepcha *pho*, Chepang *moa*.

To the form *iu* are related the Mijhu *wa*, Yuma *wa, ku-wa, ta-wa, ka-wa, tu-wa*, Toung-thu *a-wa*, Sak *wa-si*, Chepang, *fo-wl, wa*.

2. The Thochu *mar-wo* (*wo*, from the analogy of other vocables, being probably the def.) has direct Scythic affinities. It is an archaic

Scythic liquid form of the labial root like the dental form, and like it is also Iranian and Dravirian. The pure root appears to be radically *feather*, *wing*. Both the liquid (*-n*, *-l*, *-r*) and the dento-guttural series (*-t*, *-k*, *-s* &c.) are current in Scythic, Indo-European and Dravirian. *Feather* pal Korea, pil, pul-*an* Yenisk., pil-*g'*, pil-*ga*, pyd, pud, bud-*al* Ugrian, (pul Tibet, mun Singpho &c.), pl - *ia* Lat., wot Armen., par, pal-*ak*, pad, pakha, pakh-*na* &c. Sansk., Beng., Hind., puru-*ku*; b-*t-sa* Drav. *Wing* bar, bol, pauk, Hind. &c. &c. *Bird* German, vo -*el*, Lat. *avis*, Eng. bir-*d*, Sansk., Beng., Hind. par-*indu*, pata-*ka* pakh-*eru*, pakh-*yi*, Drav. par-*va*, para-*vei*, pul, paki. pita:

The Angami para, pera appears to be Dravirian and not Thochu. There is no other example of the Thochu vocable, and other Dravirian vocables are preserved in the Ultraindian vocabularies.

Allied vocables are current in Malayo-Polynesian—pio Sambawa (byu old Bhotian, pia Takpa &c.), bau Kissa, pao Mille, Batan *fowl* u-*pa*, Polynesian *fowl* moa (Chepang).

The Tagalo *i-bon*, Murray I. *a-bor*, Erub *i-bu* are probably contractions of the Malagaso-Polynesian *vuru*, *vuru-na*, *buro-ng* &c. which is related to the Scythic pul-*an* &c.

The Tasmanian *muta*, Lampong *puti* are Dravirian, Paser has *piatu fowl*, in the Abor form *putah*.

The Binua *pake* is Dravirian or Bengali.

The same root is current as *wing*, *feather*, and *egg*, the specific conjoined roots having been dropped. In many of the smaller vocabularies these words are wanting. But the larger ones furnish undoubted affinities.

1. The labial is *Egg* in Abor *a-piu* (old Bhot. byu, Sambawa *pio*, *bird*), *a-pu*, Dophla *pupu*, Aka *pa-puk*, Kambojan *pung*, Koreng *pa-bum*, Murmi *phum*, Gurung *phung*, Sunwar *ba-phu*, Mon *kha-pa*, Male *ki-pan*, Thochu *ki-wost*, (Naga-Nipal *vu*, bu, wu, va, wa &c. *bird*, Polynesian *moa fowl*, Malayalam *pui fowl*, Gyanii *s-phui bird*). It is *Feather* in Chinese *mo*, *bo*, *mau*, Burman *mui*, *kumi a-moi*, Singpho *mun*, Changlo *khe-phu*, Mikir *ar-weng* (with *mo bo* comp the Tibeto-Ultraindian *byu*, *bu*, *wu* &c. *bird*; with *mui*, *moi* the: Gyanii *s-phui*, *bird*, Pol. *bui*, *foi*, *egg*; with *ar-weng* the Kapwi *weng bird*). *Wing* does not occur even in Mr. Robinson's vocabularies, and as *Feather* is also wanting in Mr. Hodgson's, the root will probably be found to be common with both of these meanings. Siamese has *pi wing*. The Indonesian *bang Madura*, (*tir-bang to fly* Malayu &c.), *pai Bugi*, *Baligini*, *baka Kissa*, *pak*, *pako* Philippine, appear to be partly Tibeto-Ultraindian and partly Dravirian.

Examples of the Scytho-Iranian and Dravirian forms current for *Bird*, *Feather*, *Wing*, have already been given, and it will be seen from the forms now cited that the Tibeto-Ultraindian labial for *bird* is immediately connected with the Chino-Burman forms for *feather*, and not with the Scythic vocables.

For *Duck* the dental form is Scythic *pot*, *poat*, *bata*, Semito-African *bato*, *bit-uk*, *ma-bata* &c., Indo-European *pat*, *bat*, *bat-ak* &c., Dravirian *batu*, *bud-uk*, Indonesian *patu*, *bati-ki* &c., and Mon-Anam *vit*, *pet*, the last being probably an archaic Scythic form, as it is also Semitic. The duplicated radical is found in Turkish *papi*, *baby-sh*, *babu-sh*. A similar form is common in Indonesia *bebé*, *pipé*, *bibi-ko* &c. It is probably Tibeto-Ultraindian. The word is not included in the small vocabularies *Bibiko*, *bebek* &c. were probably formed by a common Indonesian mode



of reduplication from bik, bek, in which case the form is Mon-Anam, vit, pet. Naga has a similar double form pak-mak.

3. The current Bhotian chya is Chinese tsioh, chiau, tiau, chio, tio, &c. The Horpa gyo appears to be another variation of the Chinese. The Mishmi tsa, Mon *kha*-ten, Naga *o-zah*, *u-so*, *u-zu*, Manipuri *ma-sa*, *ma-tsa*, *ma-cha*, *a-ta*, *o-ta*, *ma-te*, *ngu-the*, Karen tho, Kiranti *chong-na*, Dhimal jiha, Serpa jha, Newar jhango, appear to be all variations of the Chino-Tibetan vocable, which is probably of later diffusion than the labial.

The Abor patang, petang, Dophla pata, Aka putah appears to be the dental and sibilant root (3) with the labial prefix. It may possibly be an archaic Dravirian form of the labial root not derived from Tibet, but having direct Ugro-Iranian affinities. [See App. B to chap. V, *Bird*].

4. The Jili *ma*-chik, Manipuri *u*-chek, *u*-thik-*na*, and the Sunwar *chi-na*, Anam, Binua chim, Mon *ka*-chim, Kasia *ka*-sim, Gond sim, Silong sisom [Komreng sisu], appear to be archaic Chino-Tibetan forms, distinct from the preceding, and of earlier diffusion. Kwang-tung preserves the final k in its tseuk.

The Manyak *ha*, Naga *au-ha*, Khyeng *hau*, is referable to *bhya*, *wa*, *va* or to *chiau*, *chya*, *sa*. The latter was probably its original form.

The Irawadi thik, chik is found in Indonesia, tika Tilanjang. The Saksak tiu preserves the Chinese form tio, tiau.

The same root is found in the Gond ite, titit, and as *Duck* in Dravirian ite, Burman ute, and Indonesian itik, iti', ite, titi.

As *Bird* the root is archaic and widely diffused. Scythic doi, tirte, tori, tschir-*pu* &c.; Sinito-African tauri, dide, dea, diury &c.; Sanskrit ati.

The final *m* is included in the Scythic range of finals, ziaf Aino, sibe-chu, shobo, shub-*un* &c. Mongolian. In Samoiede the same form is *duck*, shibu.

For *Feather* the -k form is common to Turkish and Tibetan, *a-sag* Turk., shuk-*po* Bhot. The pure sibilant is Japanese asi (Sansk. ati *bird*) and Korean zo.

5. The exceptional Maram *a*-roi, Songpu *n*-roi, appear to be N. Dravirian, ure Mundala, orak Uraon (urak &c. *duck* Turkish).

### 13. ANT.

The Bhotian *g*-rog-*ma*, Gyar. *ko*-rok, and Takpa rhok-*po*, preserve the same archaic form. The Abor *ta*-ruk, Aka *ta*-rak, are referable to the Gyarung branch. Sunwar has the Bhotian *rog*-*ma*-chi. In the Burma-Gangetic dialects the guttural final is nasalised and the prefix is generally the labial as in the Manyak, *ba*-rak. The *a* vowel, variable *i*, *e*, is also more common than *o* or *u*. The Mishmi *a*-ruang is an amplified form found also in Burman *pa*-rwak-*chhit*, *pa*-rwet, *pa*-yuet, the first of which preserves the guttural. The form lang is Abor (from rak as in Aka, rak Manyak) Jili, N. Tangkhul and Maram. The slender ling, leng, is Manipurian and Yuma, *mi*-ling, *ma*-ling, *ba*-lin, *pa*-leng. The more prevalent Burma-Gangetic term is a distinct root, chi, tai, tsip, tik, chu, tang, ching &c. cha, tak, tang &c.

## WORDS OF ART.

	House	Village	Road	Boat	Arrow	Iron	Salt
Bhot. wr.	khyim	yul tsho	lam	<i>g</i> -ru	<i>m</i> -dah	<i>l</i> -chags	tsha
— sp.	nang	thong	lam	koa	da	chhya	chha
				syen			
Horpa	hyò	rha va	ché	<i>gra</i>	<i>l</i> -da	chu	chhá
Thochu	ki'	we-kla	gri	phyá	ji'	sor-mo	chié
Gyarung	chhem	wo-khyu	tri	<i>b</i> -ru	<i>ki</i> -pi	shom	chhe
		tu-khyu		<i>ta</i> - <i>b</i> -ru			
				<i>sha</i> - <i>b</i> -ru			
Manyak	nyé	hu	ra'	<i>g</i> -u	<i>m</i> -a	shi	ché
Takpa	khem	yu	lem-dang	<i>g</i> -ru	<i>m</i> -la	lekh	tsa

1. *House.*

1. The Bhotian khyim, Takpa khem, preserves the full form of the most common southern name. It appears to be one of the primary native roots of the family. It is not Chinese, and although the Seytho-Iranian glossary like Chinese has the guttural root never takes the *m* final, the common forms being *k-r*, *k-l*, *k-t*, *k-d*, *k-k*, *k-sh*, *k-th* Ugrian, Kamsch., Pasthu, Hind. &c. The Milchanang and Tiberkhad keum, T. keung, (Kinawari Bhotian kung, Serpa khang-*ba*) suggest a connection with the Chinese heung *Village* *K-t.*, *hiang lu K-h.* Chinese for *house* has *uk*, *kwéi* &c.

2. The sp. Bhotian nang, Manyak nyé (=nyek) may be remotely connected with the liquid root found in Chukchi, Japanese, Caucasian, Dravirian, Iranian and African.

*Southern forms.*

1. The guttural is the most common of the Southern roots, and it takes many contracted and softened forms. The full form is retained by Jili kim and Kiranti khim. Milchanang, Magar and Abor have archaic *u* forms, *e-kum* Ab., keum M. T. This appears to be also a local Bhotian form, one voc. giving *si kung*. The Namsang, Kumi and Aka forms appear to have been similar to the Abor; and the Mulung, Joboka and Mikir may be referred to the group. The southern Irawadi varieties have *n*, Sak retaining the full form *kyin*. Khyeng and wr. Burm. preserve *m*.

The guttural is lost in some of the Manipuri dialects, most of the Yuma, Burman, and Pwo Karen.

The final consonant is lost in several of the Naga dialects, Sgau Karen and Mon.

The Newar chhen appears to be referable to the Gyarung chhem. The Magar yum belongs to the Abor-Milchanang band. It may be from a local full form like keum Milch., or it may be derived from the eastern extremity of the band where similar forms occur. Tengsa has yum *vil-lage*. (See *Village*).

*e-kum* Abor, hum Namsang, um Kumi, u Aka; ham Mulung, Joboka, e-m Mikir.

kim Jili, yim Manipuri; shim Luhuppa; shin N. C. Tangkhul, tsim Khoibu, chim Maring, yin S. Tangkhul, in Kapwi, eing Burm., Khyeng, Lung-khe, Kumi, in Kami, ing Kyau, im Burman wr., Khyeng, yen Pwo Karen, hi Sgau K., he Mon, kin Mru, kyin Sak, *cha-ki* Koreng,

kai Songpu, Maram—final ai for i as in other words,—ki Tengsa, Nogaung, Angami, a-ki Khari, khim Kiranti, dhim Murmi, khi Sunwar, him Limbu, chhen Newar, yum Magar.

keum Milch., Tiberkh., keung T., kim M., khang-ba Serpa.

2. The Manyak nyé and sp. Bhotian nang are found in nagou, nak Garo, noo, nau, na Nado, nok Mulung, Tablung, nya Deoria Ch., nha, ya Anam. The Anam and Deoria Chutia forms are connected. The others are more faithful to the archaic Tibetan forms. The root is also used for *village* (see *Village*).

3. b-li Mijhu M., li Lepcha, lan Toung-thu, a-ru Champhung, ren Ahom, reuan Siam, heun Lau, hun Khamti, hon, ong Taying M., ron Gond, ora, oa urna Kol, er-pa Uraon, arra, ar-sh Toda, illa-m, illu, illa Tamil &c. (See *Village*).

This root is used for *village* and it appears to be the same as the preceding. The variety of forms and the mode of its distribution, show it to be very archaic.

The Toung-thu lan is closer to the Bhotian nang than the other forms.

The Khyeng nang *village* has the Bh. form, and in Anam and Magar it becomes lang. Abor has long, lung, Singpho reng, Angami rana &c.

The Siamese reuan, Ahom ren, preserve the full form of the Lau fim. The vowel connects it with the Singpho reng *village*, but the Rakhoing rwa, (Horpa rhava) is probably more faithful to the original form.

The Champhung a-ru, and the Mijhu and Lepcha li, appear to be both referable to the Lau reuan, ren &c.

4. ka ting Kasia, teng Kuki, tin Gurung, (? dhim Murmi). This is a Chinese word for *village, town*, and it is current with that signification in Taying M., several Naga dialects, Sak, Kiranti and Newar. (See *Village*).

5. pe-tah Kambojan, nta Singpho, cha Dhimal, sang Manipuri. This appears to be a distinct group from the last. It is probably referable to the broad Chino-Tibetan form for *village, town, tsho, thong, so*, in Gurung sa. The Gyami shhang and Sok pa-syang *house* resemble the southern forms.

## 2. *Village.*

1. The Bhotian tsho, thong is Chinese, tsun, hiang tsun Kwan-hwa.
2. yul Bh. wr. (yul tsho), yu Takpa yul Serpa. Mongol. ail.
3. rhava (? rha-va) Horpa. Comp. ala, ola, ula Ugrian (Cheremish), ail Mong., and the liquid root for *house*.
4. Thocho we-kha, Gyar. wo.khyu, tu.khyu, Many. hü. Probably the guttural is the same root that is used for *house*.

### *Southern forms.*

1. The broad form is very rare, song Garo, nam-so Murmi, na-sa Gurung.

A slender form is prevalent but it has a distinct Chinese source. ma-tyung, ma-ting Taying M., ting Muthun, Mulung, Tengsa, ting-khua Joboka, ching Mulung, thing Sak, a-ti-gu Deor., teng Kiranti, de Newar (*house* tin Gurung, ka ting kasia, teng kuki). Chinese *town, city*, ching K-h., shing K-t.

2. 3. ma-reng, me-reng Singpho, nkha-yeng Mijhu M., du-long, do-lung Abor, dung Toung-thu, rong Mikir, sh-nong Kasia, nang Khyeng, lang

Anam, lang-ha Magar, rana Angami, *a*-rame Moz. Ang., rwa Rakh, ywa Burm.

ram Champung, C., S. Tangkhul, ram-khu Luh., rahang N. Tangkhul, nham Songpu, nam Kapwi, Koreng, Khyeng, *i*-nam Maram, nam-pum Aka, nam-so Murmi, na-sa Gurung.

These forms have several distinct affinities with Tibetan. The Khyeng nang, Anam lang &c. resemble the Bhotian nang *house* more than the forms now current in Tibet for *village*.

The Moz-Ang., Manipurian, Khyeng, Aka and Murmi rame, ram, nam &c. is a group referable to the Horpa rava, of which the Rakhoing rwa is a contracted form.

The Tengsa yam, Nogaung yum, Khari *a*-yim, Khoibu yon, might all be referred to the liquid root. But as they are identical with soft forms of the guttural root used for *house*, it is probable that they take their place with them. Comp. *house* yum Magar, yim Manipuri, yen Pwo Karen &c.

The Maring yul is identical with the Bhotian yul, and the Khoibu yon is probably connected with it.

4. ting-khua Joboka, khul Manip., Champh., ram-khu Luh., khui C. Tangkhul, ko Kyau, koo Shindu, kwa Lungke, Mru, koh Mon, *a*-ti-ga Deoria C., go Dophla, ha Namsang, *n*-kha-yeng Mijhu M., *ke-p* Male, ga Chentsu, yiu-go-*ma* Gadaba.

kyong Lhopa, Lepcha, gaun Sunwar, gang Newar.

The Mijhu kha, Namsang ha, may be archaic forms, of direct Tibetan origin (kha Thochu). The others have the u of Gyarung and Manyak.

The Lohpa kyong and the cognate Nipal forms appear to connect these words with the guttural names for *house*. Comp. keung Tiberkhad, khang Serpa.

5. muang Siam, mung Lau, ban Ahom, Lau, Siam, man Khamti, vang Kami, *a*-vang, *a*-wung, wang Kumi, *ta*-wun Pwo Karen, *tha*-wo Sgau, nam-pum Aka, bang-*phe* Limbu, *m*-ba-*t* Jili. The lab. is Dravirian pa-*da* Uraon, ha-*tu* Kol, pa-*tti*, ha-*tti*, pa-*lli*, ha-*lli*, mor-*t*, mo-*d*, man-*de*, man-*du*, man-*d* S. Drav. (*House* manei, mane, pei, vu-*du* ui-*du*, vi-*da*). The Jili ba-*t* preserves one of the Dravirian forms, and the more com. man, ban &c. the other. The root is probably connected with the Chinese fang tsz *house* K-h. Samoiede has ma, mat, men *house*, mar *village*.

### 3. Road.

1. The liquid root is Chinese lu, tau lu K-h., lau Hok-kien. The Bhotian lam, and Manyak ra, are variations of one form [=lam, lak], from the com. range of the final cons. It is probably a distinct archaic form. The root is one of the widely diffused ones of the ancient Asiatic glossary. Semitic *ho*-rom, *o*-rom &c., African *ji*-ra, *so*-la &c., Malagasy lala-*na*, lala-*mbe* (path-great); Georgian sha-*ra*, Pers. sa-*rak*, rah, re, Pashtu lar, Kol ho-*rah*, ho-*ren*, da-*ha*-*ri*, Drav. sa-*di* &c.

The Thochu *g*-ri, and Gyarung *t*-ri appear to be connected slender varieties. The Takpa lem is a modern one of the Bhotian lam. The -in form thus appears to be the distinctive one of Bhotian, and the -ng and -k of the Sifan dialects. The last is probably archaic, rak Many-, rik, Thochu. The Persian and Georgian rak, rah, ra are referable to such a form.

2. ché Horpa. Unless this root be Scythic it is exceptional.

The word is not given in most of Klaproth's Scythic vocabularies.

1. The liquid is the common southern root.

The Bhotian form lam is found in Singpho, Burman (also lan sp.), Kumi, Khyeng, Kyau, Kami, Sak (lang), Kasia lan-ti, Mon ga-lan, Manipuri, Maram, Champhung lam-pi, Kapwi, Khoibu lam-pwi, Koreng m-pwi, Maring lam, the Naga dialects (save Kha:i and Angami), Nogaung lem-ang, (Takpa), Tengsa ung-lan, Abor lam-beu, lam-te, Dophla lam-bu, Aka lam-tau, Garo rama, lam, Bodo lama, Dhimal dama, Mru tama; Serpa, Lhopa, Limbu, Kiranti, Magar lam, Sunwar la, Lepcha laum; Chepanglam, Mijhu b-lo-ong, Newarlon, Jili tang-long, Sium thang-don.

The slender Thochu and Gyarung form ri', ri resemble the Khari ndi, Sgau Karen k-le, (Thochu g-ri'), Toung-thu k-lai, and Taying Mishmi a-lyim.

Takpa dang, Anam dang, Lau fam. tang, Siam thang don, sa-non, tha-thang, Jili tang-long, Toung-thu k-lai-tan-tha, Pwo Karen phun tha, Mon dan. It appears to be Dravirian, tang-ora Savara, da-ha-ri Uraon (ha-di Karnat., sa-de Tuluv., sa-ri Gond &c.), do-va Tulug., da-da Irula, da-ri Telugu, Badaga, Kurumba, al-da-r Toda. The sibilant Songpu chang, Luhuppa song-ou, N. Tangkhul som-phu, C. T. som-bui, Angami chah, Deoria Ch. tsa-gu, Mikir toar appear to be referable to the dental.

The Murmi ghyam, and Gurung kyan, are probably related to the Gadaba kung-oru, Yerukala ye-gi.

Pwo Karen phun tha, Toung-thu ta-phu, Mon hha-pan. Dravirian, wa-zhi, ba-te, pa-de, be-ie, ba-t, pu-ho-ri, mo-r-g (varying to the aspirate and sibilant ha, sa).

The Kambojan chirada may be Arian.

Obs. 1. The Bhotian -m form is the most prevalent, but the n forms cannot be radically separated from it.

2. The labial postf. connects the Abor and Dophla with the Manipurian forms.

3. The Thochu and Gyarung slender form is only represented by a Karen name.

4. The Anam and Lau names are connected with the sibilant and dental forms of a group which includes Manipuri and Naga dialects as well as Jili and Takpa.

5. The k prefix is preserved in Thochu, Karen, Mon, Toung-thu, Murmi, Gurung.

#### 4. Boat.

1. The principal root is ru. The guttural pref. is common to Bhot., Horpa, Manyak and Takpa; the labial to Thochu and Gyarung. The only variation of the root is in the substitution of a for u and the softening or eliding of the consonant. The Horpara preserves the original form of the Thochu of ya ph-ya (for ph-ra).

2. The sp. Bh. koa may be a contraction of a form like k-rua.

3. The Bhot. sp. syen is Chinese, chuen ship K-h., shun ship, boat, K-t.

The southern terms have been given in Chap. V. Sec. 11.

1. The prevalent forms of l have the nasal final. The vowel augment of the Bhotian koa is found with this final in Taying Mishmi ro-wang (rua Brown). The Lau fam. has rua, reua. The Ka duak is the same form with the final gutturalised; and the Kambojan tak, tu-tuit, tup, and Chong dok are variations of it. Khyeng also preserves a k form, ha-ruk.

The Lungke, Khumi, Kyau, Kami, Mru laung, loung, Sak hau; have a different form of the double vowel. The Anam tau *ship* is probably referable to it, the Kambojan group having also the dental for the liquid. It is possible that these au forms have a distinct origin from the ua ones. They resemble the Irano-Dravirian and Asonesian nau, plava, falau &c.

A slender form of the root is found in Singpho, Jili, Karen, Kapwi, Maring, li, Rakhoing, Maram, C. Tangkhul lhi, Burman lhe, Mon leng, Kasia ling, Garo ring.

The *k*, *t* prefix of Bhot., Horpa, Manyak and Takpa is found in Jili *ta-*, Karen, Mon, Khyeng *kh-*, *n-*, Mikir *t-*. In Aka it becomes *ku-*, in Nogaung Naga *su-*, in Khyeng *ha-*; Lhopa and Changlo have *d-*; the labial of Thochu and Gyar. occurs in Kumi, Kyau, Koreng, Khoibu, N. Tangkhul, Champhung, and Toung-thu.

The sp. Bh. *koa* is found as a distinct root in the Naga group *khoo*, *khuon*, *khung*, *kho*, Manipuri gr. *khong*, *kho*, *kong*, and Limbu *khom-be*. Anam has *ghe*. Abor *et-ku*.

4. The Chinese *san pan K-t.*, *san pan K-h.*, is found in Siamese for *ship* *kam-pan*, *sam-phao*, *ta phao*, Anam *sloop* *tam ban*, Burman *song pua*.

3. The Chinese *chuen* is found in Anam *thuyen boat*. Brown gives *ding* which must be the Chinese *ting*. *Mulung* has *ye-sang* and *Ta-blung ih-sang*, which are referable to the Chinese *san*.

Obs. 1. The slender forms of *ru*, *ra* are only found in the Irawady branch. The *u* form was evidently the original in the South, and was communicated to the Gangetic dialects, the same form being found in the Nipal, the Hindi and the north Dravirian dialects.

2. The Taying Mishmi *rowang* [=ruang] and *Ka duak*, appear to preserve an archaic form now lost in Tibet. Its presence in the Kambojan group in one form and in the Lau in another, accords with the comparative antiquity of the Mon-Anam glossaries. The Gangetic forms *donga*, *dunga* &c. are referable to this variety. The Dravirian and Arian glossaries have distinct terms, but none of these are found in the Mon-Anam.

#### 5. Arrow.

1. The Bh. *dah*, and Thochu *ja* suggest that the archaic form was *dak*. The southern forms are similar to the softened Takpa *m-la*, (Manyak *m-a*). Comp. Jili *ma-la*, Singpho *pa-la*, Toung-thu and Karen *p la*, *pa-la*, Burm. *m-ra*, *m-ya* (found also in Gurung, Murmi and Magar, and further contracted in the *m-e* of Kiranti, *ph-ee* of Garo unless these be *me*, *phée*).

Mijhu Mishmi has the variation *lo* (*lo wat*), and a similar form *lu* is found in Angami the *lu*, Songpu *lu*, Champh. *ma-lu* and applied to the *bow* in Tengsa *lu*. The Siamese *luk* (*luk son*,—*son*, *ku-sun* is *bow*) has this vowel with the guttural final which archaic Tibetan appears to have had. Kambojan has *pi-ruen*, Mon *leou*, *lay*, *lau*.

The other forms of the Lau family have the *m* final, *lem* Laos, Ahom, *lim* Khamti. The Kasia *h-nam* is related to these. A slender form is also current in Karen *kh-li*, Lungke, *Kami li*, Doing-nak and Mrung *le*. Sak has the double term *to-li—ma-la*, the second belonging to the Jili-Burman-Takpa-Bi otian variety, and the former to the older Karen-Yuma, *Kumi* has *li-ta-i*.

The Thochu *ja* is found in the Khari *le-jak bow*.

2. The labial root—found in Gyarung only in the slender and contracted form *ki-pi*—is the prevalent one on the north bank of the upper Brahmaputra, and in older forms, probably Dravirian (*a-bu*, *am-bu* &c.), *m-po* Taying Mishmi, *e-pug*, *e-puk* Abor-Miri. The Garo *phée* and Kiranti *mé* may be this root in slender forms similar to the Gyarung and to the Kondh *pin-ju*. It is found in the Khamti *lem-pun*, M. Angami *thi-wu*.

3. A very common southern root applied to the *bow* in some dialects and to the *arrow* in others appears to be of Chinese origin. Chinese has for *arrow* *tsien K-h.*, *tsin*, *chi K-h.*, *ten*, *chen*, *dian* &c. in other dialects. Kambojan has *ting*, (*bow*) Anam *ten*. A broad form is more common Ka tong, Siamese *son*, *ka-sun*, Limbu *tong*, Lepcha *chong*; Kapwi *than*, Namsang *lu-chan*, Muthun, Joboka *san*, Mulung, Tablung *la-han*, Teng-sa *la-san*, Nogaung *la-sang*. Angami has *po-si bow* (M. A. *po-rhu*); Mru *sa*, Kumi *ta-i*, *tsa-koi*, Khyeng *thwa*, Deoria Ch. *a-ta*, Mikir *tha-l*.

4. A guttural root occurs for *arrow* in Khari *ta-khaba*, and for *bow* in Namsang *doa-khap*, Muthun and Joboka *hap*.

Obs. 1. The older Irawady forms—Karen, Yuma &c., have the Gyarung *k* pref.; the later Singpho, Burman &c. have the Takpa and Bhotian *m* pref. The Burman form has spread to the Nipal vocabularies.

2. The Mon-Anam forms are older than any of the Tibetan.

3. The Abor preserves an archaic and probably Dravirian form of the Gyarung root.

4. The slender form of *la*, *lu* is characteristic of the Karen-Yuma group.

5. The broad form of the sibilant root connects the Lau group with the Naga. This form has spread to Limbu and Lepcha which have the Siamese vowel and not the Naga. Possibly the a form of the root is Arian and not Chinese.

6. The same word is applied to *arrow* in one dialect and to *bow* in another. In some dialects both have the same name as in Nogaung *la-sang* (properly *bow's arrow*).

7. The name is frequently compound.

#### 6. Iron.

I. The Bh. wr. *chags* is a broad full form of the sp. *chhya*, Manyak *shi*. The Horpa *chu*, Gyarung *shom* (prob. *sho-m*) have a distinct vowel. The ThoChu *sor-mo* appears to be connected with these forms.

Chinese has the sibilant root *tit K-t.*, *tie K-h.* (comp. also *sik tm K-t.*, *se K-h.*). But the archaic broad Tibetan form is more immediately related to Scythic forms, *thu-mar*, *tu-mur*, also the *mar* Mong., *tup*, *tip* Yenis., *soi*, *suy* Korea. The *s-r*, *s-l* form of ThoChu is probably connected with the similar Scythic forms applied to *iron*, *sello*, *selle*, *zhilla* Tungus., but more commonly to *gold* *sor*, *shor*, *son*, *sir* &c. The older application of the sibilant root was to *silver*, *salt* &c., the root itself being that for *white*. *Iron* was afterwards distinguished as *black-silver* and *silver* itself as *white-silver*, and this led to the form for *silver* acquiring a generic meaning (*metal*). See chap. v. sec. 11. Chinese *hak kam K-t.*, *he kin K-h.* for *iroh* i. e. *black metal*; and *pak kam K-t.*, *pe kin K-h.* for *silver* i. e. *white metal*. Gold is *kam*, *kin*, with or without the qualitative for *yellow*.

Some other examples in addition to those given in chap. v. may be

taken from the adjacent Scythic family. The Yakuzki Tungusian *holarin gold* is a variation of the word for *red chola-rin*; the Lamuti dialect has *ulaty-shyngun red-silver* (*ulatyn red*), and the common Scythic *alтын*, *altan*, *altun*, appears to be a variation of the form for *red*, the full root being *kula, chola, [ula-tyn=kula-rin]*, in Ugrian *gor-d, gor-de, kel-ban* &c. Some Turkish dialects have *kysyl-kumyos red-silver*, or simply *kysyl*; Yakuti prefixes the word *white* to *silver* *uryon-kumus*. In some of the Lesgian dialects the same root *arats, araz* &c, is both *white* and *silver*; and it recurs with the former meaning in Nilotic dialects *arsa Woratta* &c.

2. *lekh*. This exceptional Takpa form is probably a variation of the Tibeto-Burman root for *black nak, lak, reg* &c. &c. (See p. 25 *et seq.*)

*Southern terms.*

1. The broad form is found in the Burm. than, Mee Kumi *ka-dang*, Songpu *n-tan*, Nams. jan, Muth. jan, Job., Mul., Tab. yan, Angami *the-ju* (M. A. je), tha Karen, tai Toung-thu.

The archaic Bhotian guttural is preserved in the Khoibu *sak-na, Koreng chag-hi, Anam sat* (comp. Chinese *sik tun, tit eron*), Tiberkhad *chaka*.

Slender forms are common, *teng-gri Mijhu M., tsi, si Taying M., thin Kapwi, tin Luhupa, thir Maring, thiar S. Tangkhu, ki-ying Kyau, yin Tengsa, Nogaung, a-yin Khari, je Moz. Ang.; tir Kyau Lungkhe, thi Khyeng, ing-chin Mikir, shein Kami, thein Sak, say-thi Toung-thu; Dhimal chir, Lepcha pan-jing.*

The *u, o* form of Horpa, Thochu and Gyarung is found in Garo *shur* (Thochu *sor-wo*), Bodo *chur*, Mrung *tcho*, Angami *the-ju*, Decria *Chutia sung*, Mon *na-soe ka-sway, po-thway.*

2. The Takpa *lekh* is found in the *lek, lik* of the Lau fam., *dek, dik Kambojan*. Some Irawady terms which I formerly considered to be Dravirian, appear to be variations of this root.

*wa-ru N. Tangkhu, ma-ri S. T., mp-ri Singpho, a-ruk Champhung, rung, run, p-ron Milchanang. Rok, luk, lok* are current forms of the Tibeto-Burman root for *black*. The same root probably occurs with the guttural pref. in the Abor *yo-gir, yo-gid, ya-gurah, Mijhu teng-gri, Sunwar wa a-kli*, (Singpho *brass ma-gri*). The analysis is probably *g-ri, k-li, gu-rah* &c.

3. *ka-pha Marain, ta-phi Jili, t'-mau, ta-mo, ta-mhu Khumi; Lepcha pan-jing, Limbu phen-je, Kiranti, Magar pha-lam, Murmi pha-i, Gurung pa-i, Sunwar wa akli, Ka mam. Kiranti, Magar pha-lam.* The labial is Dravirian, *panna Uraon, karu-mban, ka-bina* &c. S. Drav.

4. *nar Kasia, na Newar.*

Obs. 1. The broad and full Sifan form *sor, sho (r), chu (r)*, is found in Bodo and Garo; the more prevalent slender forms in *r*—also referable to it—are chiefly found in the Manipuri and Yuma group. The *a* form distinguishes the Burman, Karen and several Naga dialects; it may be Bhotian, *chang*, than for *chag*.

2. The liquid name appears from its variations to be archaic. The slender full form connect Takpa and Lau, while the contracted form, with the gutt. pref., is common to Singpho, Mijhu, Abor and Sunwar, and, with the labial pref. is com. to Singpho and S. Tangkul Broad forms like the Champhung *a-ruk*, and Milch. *run, p-ron*—found so far apart—suggest that this word, derived from the native root for *black*, was the earlier diffusive Tibeto-Burman name. It may have been that of the first Hi-



malaic vocabularies that were carried south (Mon-Anam or Lau).

The names for the other metals are not given in the short vocabularies, and any comparison of those known would be very imperfect. But I give those for *silver* and *gold*, as some repeat the roots that are used for *iron*.

#### 7. *Silver*.

1. The Bhotian word for *silver* is Chinese, K-t. ngan, K-h. yin, Bh. ngui. The Lau fam. has ngun, ngon, Namsang, Joboka ngun, Muthun ngwun, Toung-thu yun, Mulung nin-mang, Tablung toi-nan, Anam ngan. The Lau word and the derivative Naga have the archaic u preserved by Bhotian. The root is probably *white* 2.

2. Khari has a-tsun, Mikir tanga, Changlo tang-ka, Mon thaun. This is one of the roots for *white*. A different form preserved in the Siamese sit *white* is applied to *tin* in Chinese, sik K-t., se K-h.; Anam thiek (K-t.); Siam di-buk (buk *white*).

3. Angami has roko, raka. This is the liquid root for *white* lak, long &c. The Kambojan p-rak has the same root, but it is probably from the Malay perak, in Champa preak. The Angami raka throws doubt on the Semitic origin of the Indonesian perak, pirak; and the silaka of Javan &c. more than strengthens it. The root of both words appears to be the Angami raka,—pe-rak, si-laka. The prevalence of this root in Indonesia and its rarity in Ultraindia may be attributable to the native Tibeto-Burman term having been generally replaced by the Chinese. Khari preserves a native name, a-tsun, which is also a root for *white*; Tengsa and Nogaung have adopted an Aryan word, rup, lup; while all the other Naga dialects have received the Chinese name.

4. Singpho kum ph-rong (*metal white*).

5. Anam bac (*white*, bach). 6. Abor a-mel, Naga mang, Murmi mui, Milch. mil, mul, Drav. vili &c. (See Iron 3, and chap. 5. sec. 11.).

#### 8. *Gold*.

1. For *Gold* Bhotian has ser, si, Changlo, Mikir ser, Kasia k-ser, Hindi zar, Pasthu sar, Muthun sien, Joboka sian, Silong sin, Karnataka chin-na, Rakhoing shwi, Burm. sui, Karen tu, Mon to, tha, thau.

Both the Tibeto-Burman slender ser, and the Pashtu sar, are Scythic, ser-ne, sir-ne Wolg., sar-ni, sor-na Ost. &c. The Aryan hir-na, hira-nia are evidently from sir-na,—sona from sor-na; suvar-na is an amplified form.

The Siamese thong appears to be from the Pali sona, like the Milch. zung.

2. Mikir dor-bi (rok-dor *iron* Dophla). This is probably an archaic form of the Scythic sor, derived from a Sifan dialect. The Sifan names are not known.

3. Abor a-ngin, a-ina, Doph. a-en, Angami li, Khari ta-ru (*Iron* 2).

4. Singpho ja (*Iron* 1).

5. The Chinese kam K-t., kin K-h. is found in the Lau fam. kham, thong kham, Namsang kam, Mulung, Tablung kham, Anam kim, Toung-thu khan-ni.

6. Aram has vang, Laos wang (*yellow* Ch.); Ch. hwang kin K-h., wong kam K-t. *yellow-metal*.

7. The Kambojan mias is Malay, mas.

Obs. The southern names for the metals are mostly Tibetan. A few

Dravirian terms are preserved in the North Gangetic dialects. The Mon-Anam vocabularies contain archaic and modern Tibetan, and archaic and modern Chinese, names. The Chinese names appear to have displaced the native ones in several dialects.

### 9. *Salt.*

All the Tibetan dialects have the same word,—Horpa, Bhotian and Takpa having a broad, and the Sifan dialects a slender, vowel. The abrupt accent of Horpa, Thochu, Gyarung and Manyak indicates an archaic guttural final.

The root is not Chinese, but Scythic. It is common to all the Scythic families, and in most of them it occurs both with the liquid and dento-guttural finals, and also without them. Korea *sok-om*, *suk-am* &c.; Yeniseian *chhyg*, Samoiede *shak*, *sak*; ser, sir, si. Ugrian *sich*, *sek*; *chal sal*, *sol*, *sal-na*; *sot*, *sow*, &c.

The root appears to be the same that is used for *white*, and applied to various white or bright objects, *moon*, *silver* &c. &c. (ante p. 29). Thus Samoiede has *sirr*, *seri*, *kyr* &c. *white*, *sir salt*, *serem-bire silver*; Ugrian has *sor-ny*, *sar-ni*, *sair-em whit.*, *sol-ni* &c. *salt*, *sur-yn silver*. The Yeniseian *chhyg salt* occurs for *white* in *tyg-bis* Yen., *tyug*, *chaga* &c. Samoiede. The Armenian *ag salt* appears to be the Ugrian and Turkish *ak*, *agh*, *white*. The root is one of the archaic and widely diffused ones of the proto-Scythic vocabulary. Caucasian preserves a primary form *shug*, *chush*. It has also forms in *m*, *n*, and vocalised,—*zam*, *z'am*, *zon*, *zun*, *chia*, *zio*, *ze*, *p-su* Lezg. Mingrelian has *zhumi* and Lazian *chumo*. In Cherkesian the same root is *white* and *salt*.—*chush*, *kush white*, *chush salt*.

The sibilio-liquid form is found in the Indo-European family,—*sol*, *sul*, *sal*, *salz*, *zout* &c.—and in a few African languages,—*sira*, *sina* Malagasy, *singa* Shangala, *gi-sili* Hausa, *gi-sile* Karekare, *du-gu-sin*, *ge-seli* Bode gr., *go-da-sin* Baghermi, *i-si* Mandara, *dsi-sem* Kandin, [*salo* Kabenda, *ndzolu* Mimboma, prob. Europ.]. An *m* form occurs in *Gonga shum-bo*. An older Scythic form occurs in *Penin sek*, *Ham tok*, *Goali sag-bele*; and a sibilant root without a final consonant is com., *cha-wish*, *chao* Nilotic; *chua*, *cha-vi*, *le-dze*, *mlé-si*, *mo-so*, *un-za*, *n-ta*, *n-to*, *wu-si*, *a-wo-ds*, *a-dsi*, *i-sa*, *i-zo*, *e-sa*, *ya-se*, *y-sa*, *mi-si-s*. The Semitic root is different,—*melach*, *mileh*, *melh*, *malhut*, and it is found sporadically in Africa, *mrh* Egyptian, *miluk* Bishari, *mer* Landoma, *Baga*. The more common African roots are the liquid, *u-nun*, *o-nuk*, *i-non*, *ba-no*, *a-no*, *e-ro*, *bu-ro*, *fu-ro-na*, *pu-nam*, *lam-dam* &c. and the guttural *koro*, *kiri*, *kon*, *a-koli*, *a-kan*, *mo-nggua*, *ngkua*.

From the Georgian *mirili*, and the general glossarial connection between the Semito-African and the Caucasian vocabularies, it is probable that the *mel*, *mil* of the Semitic word is a distinct root, and that the Chaldee *mil-chu*, Syriac *mel-cho*, Assyrian *mil-cha*, preserve the compound best. If so, the second element would appear to be the Scythic, Tibetan, Caucasian and African root, and the first the Semito-African, Dravirian and Scythic root for *white* that is so prolific in names of white and bright objects (chap. v. sec. 11, Iron, Silver). The form of the second element *chu*, *cha*, *cho*, is that which the sibilant root retains in *Tigre*, *Agau* and *Gonga*, *cha-vi*, *chu-a*, *shum-bo* (or *shu-mbo*).

In the south the Tibetan root is very common. Most of the forms appear to be more archaic than any of the current Tibetan, and to be referable to an *-m* and not to a *-k* variety. Possibly the Chinese *yam*, *im*,

yen—which would otherwise be neither Scythic nor Tibetan—is a soft form of an archaic Chino-Himalaic form, sam, sim, as the yum is of sum. The -in form is rare in Scythic, and the Caucasian zam, zun &c. favours the archaic existence of a similar Chino-Himalaic form. The Mijhu *ta-m-yin* is probably a modern Chinese form.

Singpho sum, tsum, jum, Jili chum, Manipuri thum, Namsang sum, Muthun, Joboka, Mulung, Tablung hum, N. Tangkhul *n-tsu*, Nogaung *ma-tsu*, Bodo shyung kare, sayung kri, Deoria Chutia sun, Sak sung, Limbu, Kiranti yum, Lepcha vom, Sunwar yu si.

Maram *n-chi*, Songpu *n-tai*, Koreng *ma-tai*, Arang *in-chai*, M. Ang. *ma-tse*, Ang. *me-tsu* (by invers.), Kapwi, Luhuppa, C. Tangkhul, S. T., Tengsa, Khari *ma-chi*, Kuki *chi*, Khoibu *mi-ti*, Maring ti, Mikir *in-yi*, Pwo Karen thi, Lungkhe *she-te*, (*nghet-te ant*, *wat-ti egg* &c.), Kyau, Khyeng *ma-tsi*, Dhimal *de-se*, Sunwar yu-si, Newar chhi, Savara *ba-si*, Gadaba *bi-ti* (= *mi-ti* Khoibu).

Champhung *ku-sam*, Changlo *in-cha*, Burm. *ehha*, *sha*, Toung-thu *ta*, *ta-thah*, S. Karen *i-tha*, Mru *wi sha*, Magar *cha*, Gurung, Murmi *cha-cha*, Tiberkhad, Milch *tsu*, Garo *syang*, *kara sam*, (the guttural is the Hindi *khar*, Bengali *khyar potash*).

2. Siam *k-leua*, *k-lua*, Ahom *k-lu*, Laos *k-en*, *k-em*, Khamti *k-u*; Kasia *m-luh*, Kumi *ma-lwe*, *pa-loi*, Kami *wa-loi*, Abor *a-lu*, *a-lo*, *a-la*, Dophla *a-lo*, T. Mishmi *p-la*, Pwo Karen *la*, Anam *loi*. This root is Chinese, *lu*. It appears to be the com. Tibeto-Burman liquid root for *white*, which occurs with similar forms (p. 28, 29).

The Bengali *nun*, Hindi *lon*, Sindhi, Asam *lun*, Singhalese *lunu*, Kol, *bu-lung*, *bu-lang*, have the same root in the Mijhu, Garo, and Yumu forms for *white*, *lung*, *lang*, *nung* &c. The African liquid names may have an Indian origin.

3. Anam *muoi*, Mon *bho*, Kambojan *am-bil* (? vom Lepcha). These words have no affinity with the Tibetan or Chinese roots, and they must be referred to the Dravirian element of Mon-Anam. The S. Drav. dialects have *uppu*, *uppa*, *upp*, Kol *bu* in *bu-lang*, Male *be-ku*, Uraon *be-kh*. All these Draviro-Anam words are connected with the Thochu, Mon-Anam and Dravirian labial root for *white*. The Kambojan *am-bil* has the Drav. form found in *white*, *silver*, *moun*, *star* &c. The others resemble the Kol. *pun-di*, *pun-ta*, Tuluva *bol-ane* (the other S. Drav. dialects have the slender form *vel*, *bil*), Naga *u-po*, Sunwar *bwi* &c. *white*, and some of the Gaugetic forms for *silver*, *mul Mulch.*, *maui Murmi* &c. The root is Scythic, *white* *boi-nat* Yukuhiri, *wai-kan* Ugrian; *silver* *hopia* &c. Ein, um Korea. From the forms of the Dravirian and Mon-Anam root in its different applications, it is probable that it belongs to the Scythic basis of the archaic Dravirian glossary. The -k forms for *white* in Lau &c. are Chino-Tibetan, (Thochu). The use of the labio-liquid root for *salt* is common to Georgian, Semitic and Dravirian.

The Gond *sa-bar* (*sa-* is pref. in some other words) appears to preserve an archaic full form of the labial root like Kambojan (*bal*, *val* is the Kurgi and Tuluva form, *mar* in *mar-sal light* Kol.). The Pasutu *malga* may be the same root, *mal-ga*.

The Sanskrit *la-van* may have the same liquid root. The postfix occurs in Scythic and African words also and may be the Scytho-Drav. root for *white*. Australian has *wil-ban white* (*wil* Drav.).

## SEC. 7.

THE FORMS AND DISTRIBUTION OF THE CHINO-HIMALAIC NUMERALS IN CHINA, TIBET, INDIA AND ULTRAINDIA, CONSIDERED AS ILLUSTRATIVE OF THE ANCIENT RELATIONS AND MOVEMENTS OF THE TRIBES OF THIS PROVINCE, AND OF THE SECULAR CHANGES IN THEIR GLOSSARIES.

Any further remarks on the distribution of the numerals must be chiefly supplementary to those which have already been offered. But some general points of interest are brought out by a closer comparison of the southern forms with each other and with the Tibetan and Chinese.

It is clear that each of the primary numeral elements—definitives—has assumed a great diversity of forms in different eras, or in different dialects. The most prevalent Chinese and Tibetan forms are not those which appear to have been so at the epochs of the first diffusion of the Chinese numerals in Tibet and of the Tibetan in Ultraiidia. But as the vowel probably varied from a very remote period, the subject does not admit of our attaining positive results beyond a certain extent.

Upon the whole evidence, direct and collateral, it may be concluded that broad forms of the guttural or dental definitive were used as the earliest unit, and in higher numbers formed from the unit; and that the Chinese series was—

(I.)	.....	1.
(II.)	.....	2.
(III.)	2 + 1, .....	contracting to 1.
(IV.)	2 + 2, .....	” ” 2.
(V.)	3 + 2, i. e. 2 + 1 and 2	” ” 2.
(VI.)	5 + 1, .....	” ” 1.
(VII.)	6 + 1, .....	” ” 1.
(VIII.)	10-2 (10 being 1) ..	” ” 1 or 2, or 2, 1.
(IX.)	10-1 .....	” ” 1.
(X.)	.....	1.

In sec. 4, I considered it probable, from analogy, that 5 was 1, although differing in form from all the definitives used in the lower numbers, save one of the varieties of 2. That it is really 2 will appear on a comparison of all the forms. The root for 6 appeared exceptional, and it was considered as being an archaic N. E. Asian ternary term, 3, for 3, 3. As 3 is 1, the root, whether considered as 5 + 1 or 3 + 3, would be the same in form, so long as the two definitives used as 1 and 2 formed higher numbers by simple repetition without agglutination or contraction. I now think that luk 6 can be explained as a normal Chino-Tibetan form of 1. The Chinese 7 was shown to be 1 (for 6 + 1); but the Tibetan, with the exception of Thochu and Manyak, to be quinary. The Chinese 8 was shown to be 10 (for 2, 10); but the Tibetan 8 was considered to be 4, 2, for 4 the 2d. In several of the Southern dialects the name for 8 is a root for 10, that for 2 being lost. Singpho *ma-tsut*, Bodo *jat*, Arung *ti-sat*, Namsang *i-sat*, Tablung *thath*, Khyeng *sat*, Toung-thu

that, Khari *sa*-chet, Muthun *a*-chet, Garo chet, Burman shyit, Nogaung te, Deoria *dagn*-che, Chong *ka*-ti, Angrami *the*-ta, Newar *chya*, Tengsa *the*-sep. This is the Chino-Tibetan 10 (itself a form of 1). In sec. 4 the identity of the r, l, element of 8 with 4 was pointed out, and the inference drawn that 8 was 4, 2, i. e. 2d 4, the second element resembling some forms of 2. But these common southern forms of 8 appear to be reconcilable with the northern. In the remarks on the Chinese and Tibetan 2 and 4 the radical identity of both was shown, and it was pointed out that the Tibetan liquid form of 4 preserved a variety now obsolete in the Chinese 4, although preserved in 2, "one of many illustrations of the great antiquity of the first diffusion of the Chino-Tibetan numerals." The probably denary origin of the Chinese 8 and 9 was also noted. In my first comparison of the Chino-Tibetan numerals (App. C.), I remarked the accordance of some forms of the liquid element in 8 with liquid forms of 2. If we consider this element as in all cases representing 2, the southern numerals of the Tibeto-Burman family are reconciled with the northern, and both with the Chinese; and this view I now consider the right one. According to it, the Tibetan 8 and 4 retain forms of the Chinese 2 distinct from the current nasal ones. The common southern 4, *ma*-li, *pi*-li, *ba*-li, *b*-ri *p*-re &c. is an ancient Tibetan form of 2 and 4, corresponding with the Chinese li, liang 2. A Tibeto-Burman full form with the labial prefix, as in 4 and 8, is also preserved in one of the most archaic of the southern dialects, Mru, which has *p*-re 2, (comp. Bodo *b*-re 4, &c. &c.). This appears to have been replaced in 2 of the other southern dialects by the later prevalent Tibetan 2. The second element in the Tibetan 8, *gyud*, *gyet*, *yet*, *gye*, *éé*, must be a form of the unit representing 10. The Mru *ri*-yat 8 has the two pure roots 2, 10, as in Horpa and Gyarung. \*

From the preceding Table it appears that the definitive used as the unit is found in 1, 3, 6, 7, 10, and, in some dialects, in 8; and that the definitive used as 2 is found in 2, 4, 5, and, in some dialects, in 8. These two definitives may be termed the unit and the dual.

The unit being in its origin a demonstrative or definitive used qualitatively or discriminatively, its vocabulary was probably coextensive with that of the definitive in the older classes of language. In the Chino-Himalaic definitive system the normal unit def. was the guttural, varying to dental, sibilant and aspirate forms, as the same def. and unit does in all other formations in which it occurs, Scythic, Semito-African &c. It also varied to the liquid as in other formations, but this form was comparatively rare. In Tibetan this def. is now applied to inanimate substances, the labial being the primary animate def.

The Chino-Himalaic unit, in its earliest cognizable stage, had two forms, one having the labial final, and the other the guttural passing into the dental, the vowel being broad in both, u, au, a &c. Extant examples, *gyud*, *kyok*, *kyot*, *kat*, (*kung*, *kang* &c.); *sat*, *tsat*, *chat*, *jat* &c.; *zum*, *sum*, *sam*, *tham*, *sap*, *chap*, (*dun*, *sun*, *tun*, *song*, *san* &c.); *luk*, *ruk*, *lat* (*ram mod.*, *rang*, *nung* &c.). Of these forms those with the guttural ini-

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\* As the Chinese *y* of *yat*, *yit* appears to have been formed, not by a conversion of *ch* into *y*, but by a hardening of the vowel, from an amplified vocalic form similar to 9, it is probable that in *gyud*, *g* is the radical initial, and *yu* merely the amplified vowel. Comp. the Lepcha *kyot* in 9, *kyok* in 8.

tial are probably the oldest. Forms in t, d, ch, z, s, l, r appear to have been formed from it at an ancient period; and before the system spread into Tibet. When it was first carried into the Himalaic province broad forms only prevailed, and these are still the most common in it.

In the next or 2d stage—that preserved in the southern Chinese dialects,—slender vowels were developed, but the final consonants were retained. The Bhotian *l chig*, *chik*, is referable to this condition of Chinese.

In the 3d or latest stage, or that of the modern Kwan-hwa, the vocalic and elliptic tendency set in strongly. In the Kwan-hwa phonology all the consonantal finals, save *n* and *ng*, have disappeared. The only numeral forms referable to this stage that are found in Tibet, are some of *l* and *l0* (*sih*, *chi*, *che*, *thi*, *ti*). Its influence is chiefly marked in the contractions of the native vocables. Many of the broad archaic forms are still preserved, although vocalised by the loss of the final consonant. In others the vowel has become slender. If the formation of the Kwan-hwa phonology only began in the Tsang dynasty (A. D. 620 to 907)—as Mr. Edgkin believes—and the loss of the final consonants took place afterwards, its influence on the Himalaic province must be very modern. Probably it dates from the conquest of eastern Tibet by the Chinese in the 12th century.

The 3d stage being brought down to a period so recent, the 2d will not require to be placed at a very great distance behind it.

A second Chinese def. used as the unit was the labial. It appears to have been disused at a very remote period, and before the Chinese system was carried to Tibet, as it is only extant in the Chinese *8 pat* &c. (for the unit of 10), and *100 pak* &c. This is an archaic form of the masc. labial qualitative and definitive of the Himalaic system.

The normal dual def. was the liquid in *n*, *ng*, *l*, *r*, variable to the sibilant.

#### FORMS OF THE UNIT DEFINITIVE.

##### *Broad Forms.*

##### 1st, *u*, *o* forms.

*l* and *X*. The archaic broad forms have, in most of the Chinese and Tibetan dialects, been changed into slender ones. Some of the Chinese forms retain final *k*, *t*, (in 10 p.) The oldest forms appear to have been *kuk*, *kut*, *tuk*, *chuk* &c., *kak*, *tak*, *chak* &c., and these are current in N. E. Asian systems. Bhotian in 10 preserves a similar form *b-chu*, Serpa, Gurung *chuh*. The great antiquity of this form is corroborated by its retention of the archaic labial def. as in the Dravirian *pa-du*, *ba-d* &c. 10, Scythic *be-t* 10, *bai-ke*, *fi-to* &c. 1. A similar broad form is found in the *l* of Szau Karen *tu*, Pwo Karen *ka du*, Tengsa *ku-tu*, whence the contracted Kuki, Magar and Lepcha *ku-t*. Thochu retains this form in 10 *ka-du*, a Tibetan form of the root equally archaic with the Bhotian *b-chu*. The archaic Irawadi forms clearly associate themselves by their prefix with Thochu, which probably preserves an older form of the Gyarung *ka-ti*,—*u* in the slender phonology becoming *i*. The Lau nung, (*ling* in Ahom), is referable to the Tibetan *d*, *r*, *l* forms.

*li*. The same archaic form of the unit is found in the 3 of Bhotian *ng-sum* and Horpa *su*. It is the most prevalent form in the south and

probably the oldest, being that of the Yuma gr., Karen, Toung-thu, Burman, Singpho, Dhimal, Nipal &c.—sun, tum, tun, sung, thun, thu, song, su, um, om.

VI. The Chinese luk appears to be a liquid variety of the full archaic u form. The u, o vowel is retained in all the Himalaic forms. In the Tibeto-Ultrindian dialects the prefix is the guttural, dental or sibilant. The root varies to ru, ro, rau.

The dental and palatal varieties are found in the Bhotian duk, tuk, thu, Gyar. tok, Horpa chho. The last is probably a primary form of I similar to the Bhotian chu of 10. The others may also be more full primitive forms, but the immediate source may be the Bhotian druk, and druk may be the Chinese luk with a Bhotian prefix *d*-ruk. Possibly *dr* is an archaic intermediate form between the dental and the liquid.

VII. Manyak *s*-kwi, a form of the unit preserved in 9. Lepcha kyok (=kyot of 9), a remarkable archaic form.

The Bhotian and Lhopa dun, Serpa dyun, Changlo zum, I now consider native, for the reasons given elsewhere. Changlo has the archaic form of *l* preserved in 5. Mijhu has nun, a form corresponding with the Lau nung *l*.

VIII. Bhotian gyud, Sunwar yoh (? Mijhu ngun).

IX. Both Chinese and Tibetan retain archaic forms, kyeu, kiu, gu &c. Bhotian, Takpa and Horpa preserve the inanimate prefix, *d*-gu, *du*-gu, *r*-gu. In the south it is found in Garo *sh*-ku, Bodo *s*-ku, *ch*-ku, Singpho *tsi*-ku, Shindu *chu*-ku, Nogaung *ta*-ku, Tengsa *tha*-ku, Khari *te*-ku, Kami *ta*-ko, Kumi *ta*-kau, Milch. *s*-goi, Karen khwi. The Lepcha *ka* kyot is an archaic Chinese form similar to the Bhot. gyud of 8. The Gyaami chyu is an instance of the change of the archaic guttural into *ch*, which has taken place in the Chinese 1 and 10.

X. Bhot. *b*-chu; Thochu *ka*-du, Kami *ka*-su, Sak si su. The Kuki sum-*ka* preserves the full archaic form. Tengsa has the liquid variation *the*-lu [=the-log, *ta*-ru &c. in 6].

C. chun-wari Kumi, ro-*k*-ru Nogaung (10 × 10), ta-loyen Toung-thu.

2d, a forms.

The *a* form is also preserved in several dialects, and is probably coeval with the *u* form.

I. ra Horpa, a Thochu, ta Manyak. This was evidently a common Tibetan form at one period. In the south it is Yuma, Burman, Karen and Toung-thu. From the distribution of the *a* forms they appear to be of the same age with the *u* forms. Comp. Tengsa *ka*-tu, Nog. *ka*-tang, Sgau tu or ta &c. The Burman wr. tach [=tang Nog.] preserves the archaic guttural final.

III. The Chinese form is sam, varied to sang, san, sa, ta. In Tibet it is only found in Gyarung, *ka*-sam, whence it has been transferred to the south, being the form of Mijhu, Mikir, Garo, Bodo, the Naga groups (save Angami), Dophla, Changlo, Lepcha, Sunwar. It probably belongs to the latest Gyarung current. In some of the Naga dialects the sibilant is hardened into *z*, *r*, *l*—zam Muthun, ram Namsang, len Tablung. Kasia has lai.

VI. The *a* form is very rare. Thochu has *ka*-*ta*-re and Mijhu *ka*-tham, the Gyarung 3 form.

VII. Chinese in Kwang-tung has tsat, Thochu *s*-ta.

VIII. The same broad form is found in several of the southern systems, representing 10. It appears to have been the old Irawadi form—Toung-thu, Khyeng, Naga, Singpho, Bodo, Newar—tsat, that, sat, ta &c. The Takpa ya, Mru yat, Kami and Kumi ya, are from an a variety of the archaic form preserved in the Bhotian gyud.

IX. The a forms appear to be referable to the archaic amplifications of u. Thus the Dophla kayo appears to be a broader variety of the ancient form preserved in the Lepcha kyot. The Kwang-tung kau is a similar Chinese form, perhaps more archaic than kiu, kyeu &c. The Lau and Kumi kau are referable to it.

The nang of the double Abor term ko-nang-*ho*, ko-nang-*e*, is an archaic 10 found in the Dophla rang 10, and corresponding with the 1 of Horpara, and Lau nung, ling &c. The Taying ko-nyong 9 has the broad Lau vowel.

Dhimal has a similar double form ko-ha-*long*, and Taying has ha-*long*.

X. Chinese chap. The Horpa s-ga, s-ka, Garo s-kang, is a vocalised variety of a still more archaic form. The Lhopa cha of cha-tham has the Chinese form. Newar san-ho, Khyeng ha, Kami ha of ha suh.

The Bhotian tham-*ba* appears to be an archaic form corresponding with the Chinese chap, Kuki sum.

Dophla rang, Khari ta-rah, Shindu me-rha. (See I).

Kumi has hau, an amplified form corresponding with kau 9.

C. gya-tham-*ba* Bhot., gya Serpa, cha-the (10 × 10) Nams., ya-*kha* Shindu, ta-ya Sak.

Sunwar s-wai ka (1 × 1 for 10 × 10, ka 1 Sunwar, chi-wai 10 Murmi). rhya Horpa, lat-sa (10 + 10) Singpho, ra-sa Kuki, k-laat Khyeng, ta-ra Kami, Burman wr. (ta.ya *sp.*).

#### *Slender Forms.*

I. Chinese chit, chek, yit, it, ih, i', i. Bhot. chig, Gyar. ti. These slender forms have made little progress in the south, and must have been received subsequent to the migration of the broad forms preserved in Manyak, Horpa and Thochu.

III. The only slender forms are the Thochu, Manyak and Sak.

VI. There are no slender forms.

VII. The Chinese forms are generally slender. As an archaic broad form is found in 3, it may be enquired whether the Chinese 7 did not retain its full form 6, 1, until after the development of the slender form of 1?

VIII. Garo chet, Muthun a-chet, Khari sa-chet, Burm. shyit, Nogaung te, Deoria *dugu*-che, Chong ka-ti, Tengsa the-sep. These are all referable to the modern 10.

IX. The modern Chinese kiu, kyeu, are not connected with the modern slender 1, 7 or 10, but with the archaic form of 1. They Tibeto-Ultraindian forms are all broad.

X. The Chinese slender shi, ship, sip. &c. has been received into Gyarang Manyak and Takpa. In the south it is found in conjunction with an older broad form, equivalent to *one ten* (20 being in many *two ten*, 30 *three ten* &c.). Burman she, Toung-thu tah-si (ta in 1), Sak si su (su 1), Namsang i-chi, (Mikir i-chi 1), Singpho si, Bodo ji, Abor u-ying, Changlose (also song), Lepcha ka-ti (1 ka-t, Gyarang ka-ti), Kasia shi pon, Limbu thi bong, Murmi chi wai, Lau fam. sip, Mikir kep, Kiranti kip, Chep. gyib.

C. Angami k-re.



## FORMS OF THE DUAL DEFINITIVE.

II. A. An archaic Chinese form is preserved in the Hok-kien *nó* and Tie-chiu *nó*.

B. The next form evolved appears to have been *liang*, *leung*, *ni*,—probably from an archaic form of *nó* [e. g. *ngok*, *nyok* or *niok*, *niak*, *niang*, *liang*]. *Ni* is the colloquial Shanghai form, and appears to have been also the Kwan-hwa.

C. The latest form has been evolved since Kwan-hwa converted *ni* into *rh*, in Gyami *ar*.

Some of the segregatives used to indicate pairs were probably ancient words for *two*. Kwang-tung has *tui* and *sheung*, Kwan-hwa *tu* and *shwang*; Shanghai has song "a pair of shoes."

The *o* form is not found in the Himalaic province in 2, save in the Kumi *nhu*, Sibsagor *Miri ngo-ye* and Singpho gutturalised *nkhong*. A cognate broad variety is preserved in Thochu *nga*, Manyak *na*, Takpa and Bodo *nai*, and, less contracted, in the Burman *wr. nhach, nhak' (sp. nhit)*, Tengsa *a-nat*, Nogaung *a-na*. The Bhotian *nyis*, Gyarung *nes*, are slender varieties formed from a similar archaic Tibetan form [*nhak* or *nyak*, *ngak*, *ngik*, *nyik*, *ngit*, *ngis*; *nis*]. The Changlo *ngik* preserves an older stage.

The *sp. Bhotian nyi*, Horpa *nge*, are not derivatives from the Kwan-hwa glossary, but local variations produced under the influence of the later Chinese phonology. The contraction of the Sifan broad forms is to be explained in the same way.

In the south, the prevalent slender forms *nhit*, *nyet*, *ngi*, *ni*, *ne* &c. are not, in general, Tibetan importations, but local assimilations to the later Chino-Tibetan forms, induced by the modern phonology. (See p. 17).

The Mijhu and Garo *ning* is referable to *nik*. There is no example in the Himalaic province of the modern Kwan-hwa form.

While the Chinese dialects use both the nasal and liquid (e. g. *ni*, *liang*) forms as distinct words for 2, it is remarkable that only one of the known Himalaic vocabularies uses the liquid. It is found in one of the least modernised of the Yuma dialects, *Mru*, in the form *p-re*, the vowel being that of the nasal form in *Toung-thu*, *Angami*, *Khari*, *Dhimal*, *Lepcha*, *Limbu*, *Gyarung* and *Horpa*. This is an archaic Chinese vowel—*leung* Kwang-tung,—and as it is preserved in the 4 of *Manyak*, *Bodo*, *Burman*, *Angami*, *Tengsa* and *Sunwar* and in the 8 of *Kiranti*, *Murni* and *Gurung*, it was probably at an early period current as 2 in Tibet. The *Kasia ar* is a cognate broad variety, of which the full form is preserved in *p-rah* 8. In 4 and 8 *li* and not *ni* is the common form. It is clear therefore that *li*, *ri*, *re*, were used for 2 in the Tibetan system before it was carried south, and as the *n* form, now almost universal for 2, has archaic forms which could hardly have been derived from China subsequent to *li*, it is probable that in Tibet also both forms were current at one period. The labial prefix indicates the great antiquity of the *l*, *r*, form. It must have been disused in 2 before the original of the prevalent Southern systems was transported from Tibet.

The *Lau sang*, song, *Changlo ching* (*ngik ching*) appears, like *nung* 1-

to be an archaic Chinese numeral. It is similar to some of the current Chinese words for *pair*. \*

IV. The oldest forms appear to be the Horpa *lha*, Kiranti *la*, Arung *dai*, Angami *da*, *deh*, which are probably examples of archaic Chinese forms early current with *nha*, or *nia*. The Chinese *liang* 2 is a similar form. Archaic forms are also preserved in those names for 5 which propose the word for 4—*lia*, Takpa, *dia*, Dhimal, *rai* Bongju, *lei* Mijhu (*li* in Abor.). See p. 19. The Takpa and Dhimal *lia*, are evidently from *liang*.

The passage to the sibilant was probably through the sonant forms *j*, *z* &c. In Kwan-hwa the archaic sound *ni* becomes *r* and *j* (=zh). This change would convert the *nia* into *zha* (Thochu), and the current Chinese *sz*, *ss* are analogous forms, *si*, *ti* being probably later. The *l*, *r* forms are probably older than the sibilants. The interchange of *ni* and *li* is so easy and common that forms in *li* must have early been current in China along with *n* forms. The current *liang*, *leung* show that the *n* was commuted with *l* before the final consonant was lost.

The Tibetan and Southern *li*, *di*, *ri*, *le*, *deh* &c. are of a later type than *lha*, *ra*, but older than the sibilant. As the Horpa *lha* adheres to the normal form of the Thochu *zha*, so the earlier form of the Bhotian *zhi*, *zhi* is preserved in the Takpa *li*, and the Gyarung *di* is referable to a similar form. It must have prevailed in Tibet when the numerals were carried south.

V. The older Chinese *ngo*, *go*, *ng* are broader than the old forms of 2 *no*, *nō*, and similar to some archaic Himalaic ones,—*ngo*, *nga*. In Tibet these archaic forms are also current as 5,—*ngo*, *nga*, *nha*.

In the South *nga* (Bhotian, Manyak, Thochu) is the most common form. The *o*, *u* vowel of Chinese and Gyarung is found in Khyeng *ngau*, Angami, Tengsa, Nogaung *ngu*, Abor, Dophla and Sunwar *ngo*, Lepcha *ngou*. The slender vowel of Horpa *gwe* and Takpa *lia-uge* is not found in the south.

VII. In Tibet the nasal form with the *e* vowel is found in the Horpa and Gyarung 7 as in 2. Both *e* and *i* are common in the South.

The older broad form is found in Toung-thu *nwot*, Kumi *sa-ru* (as in *pa-lu* 4), Limbu *nu-sh*.

The *a* form occurs in Muthun *a-nath*, Abor *ko-nang-e*, Dophla *ka-nag*, Chepang *cha-na-zho*.

VIII. The Thochu *ra* of *hh-ra-ré*, Gyarung or of *or-yet*, and Horpa *rhi* of *rhi-éé* are examples of the three forms which the root has acquired in the liquid variety. The Bhotian *br* of *br-gyud* appears to be merely a double prefix to *gyud* as in *br-gya* 100 where the guttural can only be the unit. (comp. *r-hya* 100 Horpa, *par-ye* 100 Gyarung). When this form of 8 was produced, the *l*, *r* form of 3 must have been current in Tibet, or at least in the dialect which originated such a form. The Manyak *zi* (in 40 *zyi*) appears to be a sibilant form of an older *ri* or *li* similar to the Horpa *rhi*. In the South the oldest group preserves some full forms *Mru ri yat*, *Kuki ri-et*, *rik-t*, Shindu *cha-ri-a*. Similar forms without the 10 or its remnant occur in Kiranti *re-ya*, Murmi, Gurung *p-re* (= *p-re* 2 of *Mru*).

\* Possibly it is from *liang*. In the decaying Chinese phonology *ni* passes into *z* and *j*. Thus the Shanghai colloquial *niun man* is read *zun*, and in Kwang-tung has become *jin*; *nich fresh* is *zoh* and *juh*.

The only broad forms similar to Thocho are *p-ra-p* Chepang, *p-rah* Kasia.

The only nasal forms are those of Abor and Mikir.

RESULTS. (1). The archaic broad form *ngo, nō* &c. is current in 2, and 5 of Chinese and several of the Tibeto-Ultraindian dialects, but in most cases with the *a* vowel, and in several with a final consonant, *k, t, s, ng*. From its great persistency in 5 throughout the Chino-Himalaic province, it appears that it was a current form of 2 when 5, by throwing off the word for 3, acquired the character of a distinct root, and was thus exempted from participation in the later changes which 2 suffered.

(2). Liquid forms of 2, both broad and slender, appear to have early been evolved, and to have been current along with nasal ones. The use of two or more names for 2 is common to the Chino-Himalaic with other numeral systems. The Chinese *liang, leung* 2 is an ancient form. It was probably the most common name in the dialect that first gave the numerals to Tibet, for it appears to be the parent of *lia, li, la, lu, ri, ra, ru* &c., the form of 2 which must have been current when the existing Tibeto-Ultraindian 4, 8 and 40 were produced. The Chinese, like the Himalaic, sibilant 4 appears to be referable to this form.

The Chinese form of 4 then current must have been *liang, leung*, (? *liang-liang* &c.) or a similar form which afterwards became sibilant, and acquired the character of an independent root.

(3). The current Himalaic slender nasal forms of 2 are local variations of the archaic broad nasal form. The ancient *ra, li* cannot be derived from *ni*, the most modern form of *ngak* or *nyak*. The relation of the Himalaic *ni* to *lia, li, lu* &c. appears to be similar to that of the Shanghai *ni* to *liang*. Both have been derived through different channels from a primary naso-guttural root *ngok, nyok* &c. In the Himalaic province the *l, r*, numeral appears to have fallen into disuse in 2 in nearly all the dialects, the current 2 being in general the nasal. The *l, r* form has lost its binary character, and in most of the dialects has concentered with the archaic labial prefix. The occurrence of the later prevalent 2, and not of the earlier *p-li* &c., in 7 may arise from 7 having been 6, 1 while *li* was used in 2, as in Chinese, Horpa, Manyak &c. That the quinary 7 was not formed till *p-li* &c. was disused for 2, appears from its not only taking the later current form of 2 but the later prefix.

To complete this review of the elements that enter into a comparison of the Himalaic numerals and throw light on the history of their diffusion, it is necessary to advert to the various forms of the prefixes and postfixes. These are simply the archaic definitives of the formation used possessively or qualitatively, as in the numeral systems of other formations that retain a possessive servile.

The labial (animate, masculine, fem.) is well distinguished. The others present some difficulty. The most important is the guttural, inanimate in the Tibetan system. As an archaic prefixed def. it has the variations *g, k; d, t; z, s, h; r, l, n*.

In the secular progress of glossarial mutation, the definitives have acquired various specific functions, and different forms are now in many cases equivalent to distinct roots. The dialectic variations are also considerable. From the computation of all the consonants save the

labial, it is hardly possible to ascertain the number and forms of the primary Himalaic definitives. The history of the labial is clear. It still retains its primitive and earlier secondary applications, human, male and female, animate &c. Its transfer to inanimate objects was probably primordial, because in primitive science all things are living and sexual. The guttural was probably also animate and sexual, as in Chinese. In Anam it is fem. and inanimate, and in Bhotiau inanimate. How far the other definitives are merely phonetic variations of the guttural, and how far they are primitively distinct, it is difficult, if not impossible, to determine with complete accuracy. In many cases they are clearly referable to it. But the prevalence of the liquid *la*, *ra*, *na*, *lu*, *ru*, *na* &c. &c., as an animate, a masculine, and, to a less extent, as a fem. root, in the Chino-Himalaic vocabularies, makes it possible that the liquid def. is referable to it in some cases, and not to *k* through *t*, *d*. In many of the names for man and the lower animals it is a sex definitive or qualitative; and as the labial in all its forms was early transferred to inanimate objects, it is probable that the liquid was so also. The sibilant appears to have been a very ancient, as it is one of the most extensively diffused, human and sexual—generally feminine—forms of the definitive, and as it occurs with its primitive substantive meaning in the Chino-Himalaic vocabularies, it may have early been applied to inanimate objects. The easy interchange of *t*, *th* with *s*, *h*, and of *l*, *r* with *z*, *s*, renders the history of the sibilant as a distinct prefix very uncertain. But as the passage of the *g*, *k*, *d*, *t* into the *th*, *t*, *s*, *z* and *h* prefix is free from doubt, and the sibilant is not common as a substantive sexual root, it may be concluded that, in general, the sibilant prefix of the Himalaic glossaries is a secondary form derived from the guttural through the dental or the liquid. The common series of mutations are *g*, *k*, *kh*; *d*, *t*, *th*; *z*, *s*, *h*, *j*, *ch*, *y*; *t*, *d*, *n*, *l*, *r*, *z*, *s*;—*l*, or *r*, *y*.

It is probable that in the earliest stage of the definitives the labial was applied to animate and the guttural with its variations to inanimate objects. In that stage the numeral and the qualitative probably took the def. of the substantive as in Zimbian. But before even the oldest prefixes now extant in the glossaries concreted with the roots, they had either acquired an absolute use, or life and sex were attributed to inanimate objects.

After the proposed definitives became prefixes, they tended to merge in the root; but definitives being still current as separate particles, they were used with words which had concreted prefixes. In different dialects the common prefixes, or their forms and applications, varied. Thus while one used the labial chiefly or wholly, another used the guttural or one of its forms. The same dialect varied in different eras in this respect. A further source of diversity and irregularity in the prefixes of each dialect has been the mutual action of the dialects. Thus when one which affected the labial prefix came under the influence of another which used the guttural, and adopted it, some words might have the old and some the new prefix; but the old would, in general, either be disused or concrete with the root. Thus *ba-ri* would become *b-ri*, and then *ka-b-ri*. In the same way the archaic *k*, *t*, *s*, *l*, *r* prefix might merge in the root, or be retained as a prefix, while the later current definitive labial or guttural was superadded;—*du-ru* or *d-ru* would become *ka d-ru*,—*ki-ni*, *ti-ni*, *si-ni* or *s-ni*, would become *ka s-ni*, *ma s-ni* &c. In some cases the concreted pre-

fixed consonant appears to be the terminal and not the initial of the definitive, definitives sometimes having final m, or r, n, ng. Thus the Thochu r of *r-má name* may be from *tar-má*, Gyarung having *tir-ming*. The Bhotian *r-na ear* may be from *tur-na*, Gyarung having *tir-ne*. But the final r &c. may itself be the remnant of ra, ro &c. as Mr. Hodgson believes. While in one dialect an archaic prefix has thus concreted with the root mon syllable, in another the full form is retained. This has been abundantly illustrated in the course of the miscellaneous glossarial comparisons. I shall only adduce one or two instances here. The l, r root for *bone* has the labial pref. in some of the archaic Irawadi dialects (Manipurian, Sak), and ka, kh, g, ta, te, sa, thu, so, in the majority of the Southern dialects. In the Gurung *nu-g-ri* the guttural pref. is concreted and the nasal superadded, unless nu be a later Bhotian form of the root (ru). Garo has *g-ring*, Jili *kham-rang*, Maring *kh-ru* &c. In the Gyarung *t-ri road*, t is the current secondary form of the guttural preserved in the Thochu *g-ri*. In the Gyarung *ti-d-ri, skin*, ri is the root and d an older form of the dental prefix, of which the archaic guttural form is preserved in the Horpa *g-la*, Manyak *g-ra*. The Thochu *ra-pi* gives the pure root with the labial postf. So *gha-da, star*, Thochu, is archaic; *g-ra* Manyak, an archaic concreted form; *s-g-re* Horpa, a slender variety of the same archaic form with a superadded prefix, in its turn concreted. The Gyarung *tsi-ni* gives this later pref. in a full form. The Bhotian *d-ro o hot* is preserved in a more archaic form in the Takpa *g-ro-mo*. Gyarung, in *ku-s-man ripe*, superadds its current pref. to an archaic concreted form of the same pref. similar to the *de-* of the Manyak *de-mi*. Bhotian has the Gyarung form with its current qualitative postfix *s-min-bo*. Thochu has the pure root, min. In the south the archaic form of *de-mi, s-min, s-man* is preserved; Bodo *gu-mang*, Tengsa *tu-man*. The Khari *te-nhing* (for *ming*), Augani *ke-me*, connect the dental Manyak form of the prefix with the guttural. The archaic labial is also found in the south, *pap-man* Garo. The names of animals afford several examples of the concretion of archaic prefixes and the adoption of new ones, e. g. *Monkey she-p-ri* Gyarung, *s-p-re-bu* Bhot. (both the primary and secondary prefixes concreted); *Snake m-ru* Takpa, *s-b-rul* Bhot., *hha-b-ri* Gyar.; *Ant ba-ra* Manyak, *tu-kh-ra* Thochu, *s-kh-ro* Horpa; *Crow wa-lo* Tengsa, *a-lok* Lepcha, *a-b-lak* Bhot. *ta-b-rok* Gyar., *hu-ta-rak* Khoibu, *ka-luk* Serpa &c.

The roots having now been identified in their various forms, and the relative antiquity of these forms so far ascertained, the numerals are found to reflect some historical light.

The oldest units were the labial and the guttural. The former was disused in China before any form of the numeral system spread into Tibet; but its retention in the Chinese 8 and 100 shows that it was current when the full denary numeration was attained. The guttural was probably current from the first along with the labial as a definitive and unit. (Sec. 3). At all events it early became the principal unit. It appears to have been the only one current in the Chinese dialect that first gave the numerals to the Tibetan tribes, and even in the existing Chinese system the unit in 1, 3, 6, 7, 9 and 10, is the guttural root under different forms. When the system was first carried into Tibet the pure guttural was current as 1 in China. It is now only preserved, contracted, in 9; but some full forms remain in the Himalaic province, not only in 9 but in

1 and other numerals. These Himalaic names are a distinct proof of the archaic prevalence of the guttural unit in China, and of the Chinese system having been carried to Tibet before the era when dental, sibilant and liquid forms replaced the guttural.\*

This purely phonetic change produced the existing Chinese system, in its oldest form. It is based on two typical forms of the modified unit, (1st) *chyuk, chuk, chut, duk, chak, dak* &c., whence *chbat, tsat* &c. 7, *chek, chit* &c. 1, and *luk, lak* &c. 6; (2d) *chum, chup, chap* &c. whence *chap, sip* &c. 10, *sam, san, sa* 3. The history of the changes in Chinese phonology, has made a great advance in the hands of Mr. Edkins, but the full elucidation of the development of the numeral system must await further progress. The final consonant has some dependence on the vowel, and especially on the tone. Most words ending in -k have the labial vowels u, o (Edkins' Grammar of Shanghai pp. 59, 60). An examination of the phonetic characters shows that *áu, á, è, ú*, prefer -k, while *ai, úi, é, i* prefer -t; *úi* also taking -p (Edkins on Ancient Chinese Pronunciation, Tr. China Branch R. As. Soc. Part IV p. 52). The vowel also influences the initial consonant. Thus in Shanghai k has a tendency to be pronounced before i like t, dy or dj. The regular final consonants taken by words in the long tones are -ng, -n, -m. The short or abrupt tone does not admit of these, but takes the corresponding finals -k (or g), -t and -p. The passage of -m into -n and -ng, and of -n and -ng into -t and -k, consequent on gradual changes in the vowel or its tone, would explain the existence of the same word in different ages or dialects in such forms as *kam, kap, kan, kang, kat, kak, kag*. The changes in the initial consonant may have some influence on the vowel and final. In compounds the different words exercise an influence on each other, and the Chinese numerals above 2 were originally all compounds. In these compounds the same unit and dual occupied different positions with relation to each other. Thus in 1 the unit stood by itself; in 3 it followed the dual; in 5, it had the dual both before and behind it; as the final element in 6 it followed it; in 7 it followed itself. As the last element in these compounds distinguished the number from the one immediately preceding, it would most readily yield to phonetic influences inducing a change of form; and when thus changed, it would be considered as the distinctive element, even before the preceding numeral ceased to be repeated. The *Milchanang sum 3, so-rum 13, tuk 6, so-rukh 16*, may be examples of an euphonic change of the initial from s to t under the influence of the consonant of a preceding element. Such changes are common in all harmonic formations; and Mr. Edkins has shewn that Chinese is much more plastic in its sounds than has hitherto been supposed. The investigation of this subject must be the work of a Chinese scholar, and in a more advanced stage of the science of Chinese phonology.

The direct change from the labial to the guttural final is well illustrated by many of the Himalaic glossaries. Numerous current roots have had

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\* I do not overlook the possibility of the system having originated in Tibet and been thence transferred to China. The full discussion of the primary relations of the Chino-Himalaic tribes and dialects demands a section by itself. The community of the numeral roots in their older forms was probably as ancient as that of the pronouns. But the developed system appears to me to be Chinese.

both forms from remote periods, but the most archaic, as we have found in many instances, is the labial. Thus the oldest forms of the liquid root for *white*, *air* &c. are lum, lom, rom, dum, dom &c., whence lung, lug, lang, lak, rhot, lut &c. For *water*, *river* &c. the forms nam, nak, rang, rak, rik, rit, ri &c.; for *mountain* lum, (Kasia) ram, nom, lung, dung, rong, nong, rok &c.; for *hand* lap, lak, dak, chak, yak, let &c.; for *boat* tup, dok, dong &c.; for *iron* shom, sung, chur, chak, chat &c.—are all current. Archaic labial forms of the common Himalaic roots are most common in the older Southern vocabularies—the Mon-Anam. In one of the later, the circumstance of its having been reduced to writing, enables us to trace the recent progress from labial to guttural finals. In Burman tup *fat* of the era when the alphabet was acquired, is now pronounced tok; nhap *mouth* is now nhok; a-rup *chho ugly* is now a-yok sho. The change of m to n, and that of k to t, are also common.

The two types of the unit may have been contemporaneous in the same Chinese dialect from a very remote period, and even in the guttural era. The present system may have resulted from gradual changes in the same dialect—the different forms of the unit in higher numbers, to some extent representing the forms used as 1 in different ages. A very slight change, in the tone, vowel, final or initial, would suffice, in a monosyllabic and richly vocalised language, to raise the unit in a higher number to the rank of a distinct vocable, and enable it to dispense with the other member of the compound. The current 1 being used as an article, and much more frequently than higher numbers, would be more liable to phonetic changes; and the units of higher numbers, when their genealogy was lost, would not share in these changes. But it is more probable that the agency of more than one dialect is to be recognised in the different Chinese forms of the unit, as it so clearly is in the Himalaic province.

The archaic existence of the guttural root with both dental and labial finals is rendered probable by comparing the Bhotian forms for 10 in 8, gyud, gyet, gye, keu, khya &c., with the 10 of Mijhu kyep, gyep (in 30), Chepang gyib, Kinanti kip, Lepcha tip (in 11, 12 &c.), Limbu gip (in 100), Mikir kep,—these labial forms with the Chinese and Lau sip, chap &c. 10;—the Tenaserim tsit, 8, 10 and the com. Lau chit, chet 7, with sip 10;—and finally the current Chinese chit, chek, cha' &c. 1, ch'hit, ch'het, tsat, sit &c. 7, with ship, sip, chap &c. 10, and sam 3. The Mon-Anam double form lag, lak, lat and dap,—dam, lam, roum, nam,—also shows that both finals were current at a very remote period. The -ng, -n, -l, final is less common than -m and -t, -k, and in some cases it may be derived from -k. But there are instances in which it is certainly a variation of archaic -m forms, and it may often have been the immediate parent of those in -t, -k. For example the unit of the Bhotian 7, dun, further modified in the Changlo thur 1, is from an archaic dum, zum, preserved in the Changlo zum 7. In 3, sum, sam, changes to song, sang, son; in 10 it has the forms sum, song, tham, san; in 6 dong, rong, luk. The liquid form has the variations ram, rang, rak. The archaic k form with final -m is very rare, but the form kun, gun, ken &c. is widely preserved in 1, 6, 9, 10, 20 and 100. Mijhu has a variation in ngun 8, in which the initial k or g is also nasalised; and the Bhotian gyud 8 may be from a similar form.

As the labial form is not now found in 1 of Chinese or any of the Himalaic

systems, it probably preceded the other form as the principal current 1. In Chinese it became fixed in 3, 10 and 1000, when the current 1 changed to duk, tuk, chyuk, &c. or it was received from another dialect.

Of the later current Chinese forms, luk, lak 6—referable immediately to duk, chuk—is older than the current 1 and 7, and it probably therefore lost its identity as the unit, and became fixed in 6, before chat Δ c. became the current 1.

Of all the higher numbers 7 must have been the last to become a simple concrete numeral. It must have remained a compound, 6, 1, after the names of all the other numbers above 2 had become independent of the current unit.

As the initial consonant is the most essential part of a root, the principal phases of the unit may be distinguished with reference to it, as *primary* and *secondary*,—the former embracing both the older g-m, k-m, k-p forms, and the later k-k, k-t, g-d forms,—and the latter embracing both the older d-m, t-m, s-m, s-p, ch-p, l-m, r-m forms, and the later d-k, t-k, s-t forms. Each of these types has a series of variations, many of them marking progressive changes, e. g. the substitution of i, e, vowels for a, o, u, and the loss of the final consonant. Applying these distinctions to Chinese, we have found that it retains no full primary forms of the unit, but possesses a contracted one in 9; that 3 and 10 are older secondary forms; that 1 and 7 are later secondary forms; and that 6 is a later secondary form of a distinct type.

The history of the numerals in the Himalaic province is in some respects clear, but in others obscure.

The variations of the unit are numerous. The primary khum, khup, has taken the variations khung, khun, and is also preserved in slender forms kep, kip. The initial has varied to s, z, h, th, t, d, l, n, r; and these variations have occurred independently in different eras and in different groups. The vowel has varied as much as the consonant. The final in -k, -t, whether a derivative from -ng, -n, or immediately from -m, has also varied in its turn to -s &c. A reference to the following table of typical variations will render the sequel more clear.

ghum,	ghung,	ghun
khum,	khung,	khun.
sum,	sung,	sun.
hum,	hung,	hun.
thum,	thung,	thun.
tum,	tung,	tun.
dum,	dung,	dun.
lum,	lung,	lun.
num,	nung,	nun.
run,	rung,	run.

The direct interchange of r, l with s, h, also occurs; and the aspiration of r in some rare cases transforms it into the normal g.

The older primary form of the unit must have been current in 1, 6 &c.—as it still is in 9—when the Chinese system was first carried to Tibet and thence to the South. In Tibet it is retained in the Manyak s-kwi 7; in the Horpa s-ga, s-ka 10; and a form ge, corresponding with the Southern ken, khe of Dophla &c. is current as 1 in Gyarung, along with the modern ti, Mr. Hodgson giving *tir-mi tar-ge, man one*, as a form in use.



Mru has gaum in tsum-gaum 30, the vowel agreeing with that of 9, kau Kami, Lau &c. In a slender form it is retained in the 10 of Mikir kep, Kiranti kip, Mijhu kyep : gyep iu 30), Chepang gyib, and Khyeng gip, (in 30, 40, 50). In later primary forms it is current in 1 of Taying ken, khing ; and in 6 of Abor, Changlo, Newar and Karen, kung, khung, ghu, khu, ken, ke, a-k. Of this ancient phase of the Chinese system the Manyak 7, s-kwi; the Bhotian and Mijhu 8, gyud, ngun; the Horpa, Dophla, Garo and Murmi 10, ga, ka, kang, kun ; and the common Chino-Himalaic 9 are remnants. The n form occurs in the 9 of Newar, gum, and of Taying, kon-yong.

*Twenty*—like 10, 100, 1000—appears in many dialects to have been a substantive number, equivalent to *one score*, or *score one*. Similar forms of the guttural unit are preserved in it, the substantive word being lost as in 10, 100 &c., and the unit having itself acquired the meaning *score*. Singpho khun [=kun 10 Murmi, gun in 9 and 100 New.], Cachari Bodo *ma-khon*, Sak hun [=kun], Shindu *me-ku*, Angami *me-ku*, *ma-ku*, Khari *ma-khi*; Changlo *khai thur* (thur 1), Bodo cho-kai ba, 20, *khe-ugn* 100 (*scores* 5), Lhopa *khe chik* (chik 1), Lepcha *kha-ka-t* (ka-t 1) 20, *kha pha-ngon* 100 (*scores* 5), Gurung *ku-ti*. With final r or l for n it occurs in Khyeng kur, Manipuri kul, Mikir *iny-kol*, *ing-koi*, Arung *ng kai* (in 100 hai), Murmi *bo-kal* (in 100 *bo-kal nga*, *scores* 5), Sunwar *khal-ka*. In the Kami *ku suh* 20 (ha *suh* 10), both *ku* and *suh* appear to have the power of 10 like the two elements in the Garo *chi-s-kang*.

Nicobari, one of the oldest dialects of the mixed Yuma-Manipuri and Mon-Anam group, has hing, eng in 1, gian, keni for 10 in 30, 40 &c. The aspirate form corresponds with the common Nicobari prefix, which, in the Barak group (Kasia, Mikir, Bodo, Namsang, Singpho &c.), is seen to be a derivative from the guttural (kin, gin =hin, sin). Nicobari has also an archaic form in 7, *ha-kiat*, corresponding with the Lepcha *ka-kyok* 7, *ka-kyot* 9. The Lepcha forms would alone show that the ancient form of the Tibetan unit had not become confined to 9 when the system spread South; and the distribution of all the similar forms establishes the guttural as the current unit of the Abor-Yuma or oldest Tibetan migration. As the extant forms are nearly all of the later type, khung, khui, kyok, kyot, &c., we cannot infer from them alone, that the older form in k-m or k-p was that of the first Tibetan migration. But as they are associated with k-p forms in a few dialects it becomes probable that the later forms are local or southern variations of the older; or that both -m or -p and -ng, -n forms were possessed by the dialects of the first migration.

The passage of the guttural into aspirate and sibilant forms—either directly or through the dental—throws further light on the distribution of the oldest Tibetan forms of the definitive and unit. There are remnants of a sibilant unit with final m and ng in 1, 10, 20, and 100 as well as in 3, and these appear to associate themselves with the forms in khung, khing, hing &c., both having a common point of departure in a typical khum, kham. Bhotian has tham in 10 and 100, and Mijhu has the same form with a unit power in its exceptional *ku-tham* 6. Traces of an s-m form are found in the Yuma group. In 10 Kuki has the full form *sum*, *som*, Kyau chuom, and Car-Nicobar *sum*. From the Kami *ha suh* (*ha=ka* the prefix in 1), it is probable that the Khyeng and Mru *ha* are also from *ha su* or *ha sum*. Sak preserves the same form in 1 as in 10, and conjoined with a Dravido-Mon 1, *su wa-r*. This form associates

itself phonetically with tu, du, of Tengsa, Karen, &c., and with the sum, su, shi, si, of the Tibetan 3. In the southern Gangetic band, Changlo preserves a sibilant form in 13, song, corresponding with the Nipal and Burman song, thong 3; and its thur 1, is a similar variety; while in the unit of 7, zum, the full Yuma form of 10 is preserved. Thus its thur 1, zum 7, song 10, and khung 6, are all referable to the same type. The Bhotian dun 7 is a link between the Changlo thur and zum. The Changlo se of 10 may be a late form of khe preserved in khe-nga 100.

In 100 Kumi has chum wa-ri, chun-wai-re, the same compound as the Sak su wa-r 1.

In the Tengsa me sung a-nat 40, and me-sung phu-nga 100, sung is used as score, and corresponds with the common use of the guttural unit, khun, kha, ku, khi &c. with that power. Sak, as we have seen, has hun score. The guttural passes in the Angami—Tengsa group into the sibilant, ma-ku Moz. Ang., ma-tsu Nag., ma-khi Khari, ma-chi Tengsa. Lau has sau score (sau nung, score one, Laos), a form corresponding with tsau 10 Mon, hau 10 Kami, kau 9 Chinese, Lau, Kami, gaum 10 Mru.

The Anam 6 sau may retain a similar unit, but it strongly resembles the Khyeng sauk (= sa-uk, a-ruk.)

Some of the Tibetan forms may also be referable to an archaic tham, sum, chom &c. The Manyak cha for 10 in na-cha-bi 20, (che is the current 10), ta 1, with the Thochu ta in 6 and 7, a in 1, are probably modern forms of cham, tam. Mijhu has the full form in 6 tham. The preservation of ta in 6, while most of the current Himalaic forms are from the Chinese luk or its earlier form duk, is consistent with this reference of it to the oldest Tibetan system. The Bhotian chuh, chu of 10, tong 1000, the Horpa chho of 6, su of 13, the Thochu so for 10 in 20, 30 &c. (changing to ak-shi in 100, which is the current form in 3 k-shi), the Manyak si of 3, zi in 8, and chi in 10, appear, from the connection of the forms in 3 with those in other numbers, to be remnants of the era when the unit had the form sum; and to be of equal antiquity with cha, ta &c., which are referable to tham, cham. The Horpa chho 6, like the Thochu ta, must be older than the reception of the Chinese system in which duk, luk &c. was the current unit.

As zum, sum, song, dum, dun, tam &c. was an archaic Tibetan and Southern form of the unit, and is largely preserved in 10 and other numbers in full and contracted forms, it is probable that many of the southern forms for 1 similar to the latter are also contractions of the -m form. The Sak su of 1 and 10, which has been referred to sum preserved in the Kuki 10, associates itself with the Karen ka du, ka tu, ka ta, the Tengsa kha-tu, Nog. kha-tang, and the com. contracted Yuma-Nipal kha-t, ha-t &c. Both dum, tum and tam, appear, from these forms, to have been current in the same groups. The Lepcha ka-t 1, ka-ti in 10, has a full archaic form in 11, 12 &c. ka-tip 11 (from ku-t-tip, 1, 10), nye-tip 12 (2, 10), while the adjacent Kiranti has the primary form kip.

For 3 the forms sum and sam appear to have both been current in the South from an early period. Sum, Bhotian, is the most common. It was the pre-valent Tibetan form also,—the Horpa su, Thochu shi and Manyak si, being referable to it. On the other hand the Chinese and Gyarung sam, has so well defined a range in the South, that it cannot be considered as being everywhere a mere local variation of sum. The Chinese sap 10 and the Bhotian tham, tam of 10 and 100 (gys-tham-

*bu* 10 × 10), with the contracted *ta* of Thochu and Manyak (1, 6, 7) *cha*, *za*, of Manyak for 10 in 20, 30 &c., show that this was a distinct and archaically diffused Chinese form. From the vowel it appears to have been the older form of the Chinese *chak* 1 and *tsat* 7. In the South it is found in the Tengsa group *a-sam*, and in the two Nipal dialects which, in numerals as in the general glossary, have a large Tengsa element—Lepcha and Sunwar; with the Tengsa form in Muthun and Joboka *a-zam*; in Mikir, Garo, Bodo, Changlo and Dophla in the forms *ka-tham*, *gi-tham*, *tham*, *sam*, *am*; in Mijhu *ka-cham*; and, lastly, in 5 of some Mon-Anam dialects, *pa-san* Mon, *san* Kasia, *ha* Lau, *chang* Ka, and in the Mijhu 6 *ka-tham* (the Mikir 3). In the 8 of Mon and Anam—which I formerly considered quinary, but which, from the analogy of the Chinese, Tibetan and Gangetic systems, is probably denary—a similar form occurs, Mon *ka-cham*, *ka-san*, Anam *tam*. As 10, the form is very rare. Dophla has *chang* in *rang-chang* 100 (10 × 10). Newar has *san-ho* 10, *sang-san-ho* 20, *gun san-ho* 100 (*gun* is the unit in 9 of Newar, 10 of Murmi, *kun*). A com. East Gangetic 1, 8, 10, and *score* is referable to this form. The Mon-Anam liquid *l* is a variation of *tam*, *dam* &c.

The normal *a* form of the South appears to be *ka-cham*, *ka-tham*, *ka-san* (whence *a-sam*, *a-zam*), and this is Chinese in the Gyarung form *ka-san*.

It is probable therefore that both this form and the more prevalent *sum* were received from Tibet.

From the distribution of the guttural and sibilant forms in *-m* and *-n*, it appears that the former early passed into the latter, and that both were current as the unit in the older Tibetan as in the older Chinese dialects,—*sum*, *song*, *sam*, *sang* &c. 3, being but aspirate forms of *khum*, *khang*, *kham*, *khang* &c.; and *sap*, *sip*, *sang* 10, of *kap*, *kip*, *kang* &c.

The third variety—the liquid—was also current as the unit in the oldest southern system, and with the archaic *-m* final, passing into *-ng*, *-r*, *-g*, *-k*, *-t*.

In the Mon-Anam family Kambojan preserves an intermediate dental form in 10 *dap* [= *tip*, *kip* Lepcha, Kiranti &c., *tap*, *sap*, *sip* Chinese]. For 100 a similar form is current in *Ka dam*, while the liquid is found in Anam *t-ram*, Mon *k-lom*, *ka-lun* and *T'aying ma-lum*. Some of the Yuma-Gangetic *-a*, *-u* forms may be contractions of the *-m* form, e. g. Burman *ta-ra*. The Lau and Kambojan *roi*, *roa*, may be contractions of the Mon form *lom*, but similar forms are also preserved in the lower numbers of other dialects. The full form is preserved in 5 *p-ram* Kambojan, *Chong*, *nam* Anam, i. e. 3 for 3, 2. The antiquity of this form of 5 appears from its retaining one of the elements in the archaic and obsolete Chino-Himalaic compound *kham-nga*, *dam-nga*, *tham-nga*, *sam-nga* &c., while Chinese, and, after it, all the Tibeto-Burman dialects, retain the other, *nga*, *ngo*. The Mon-Anam name is thus referable to a period when the word for 3 was still used in China along with that for 2, while the Tibetan is referable to a period when the Chinese had dropt the word for 2. Mon has the sibilant *pa-san*, *pa-sun*, and *Chong* has *chang*, forms of the unit similar to the common Himalaic 3 and to the 9 of *Chong sar*, Anam and *Ka chin*, Mon *chit*. For 8 Anam has *tam*, an older form *tham ram*, and similar to the *Ka dam* of 100, Kambojan *dap* of 10. The *Suvara tamu-ji* may be an Anam acquisition. Remnants of the Mon Anam

liquid form of the dental Anam occur in the Nogaung and Khari *tha-nam*, *ta-nam* 50, which is the Anam 5. The Namsang *van-ram* and the Mung and Tablung lem 3, may be similar remnants, and not modifications of the Muthun and Tengsa *a-sam*, *a-zam*. Chepang appears to have a vestige of the Mon-Anam system in its 8 *p-rap-zho*, which I formerly considered to be 2 (for 2, 10).

The only examples of the liquid form in 1 are the Lau nung—in Abom ling—Mru loung [=long 10 Taying], Play Karen lay, Maplu na, and Miri *a-te-ro* [=hi-ro 10 Angami]. The Murmi *gh-rik* and Gurung *k-ri*, formerly referred immediately to the Bhotian *g-chik*, are of uncertain age.

Forms less clearly referable to that with final *m* are common in higher numbers. The Tengsa *the-lu* and Nog. *ta-ru* 10 is a contracted form, retaining the Him. pref. For 10 Angami has *ku-ro*, *ku-r*, *ke-ro*, *ke-r*, Mikir *k-re* (in 11, 12, 13), Namsang ruak (in 20, 30 &c.), Arung *he-rou* (comp. *she-ruk* 6). The Tengsa group has an *a* form in Khari *ta-rah*, and the same form is found in Manipuri *ta ra* and Shindu *me-rha*. The Abor group has lag for 10 in the Dophla 8 *p-lag nag* (10, 2), rang in the Dophla 10, nang in the Abor 9 ko nang-*ko* (1, 10), ling for 10 in 20 of one dialect *ir-ling-ko*, ying in the others in 20 and in 10. Taying has long, lo in 10 (*ha-long*), and yong in 9 (*kon-yong*). The Mijhu nun 7 (6, 1) is a similar form of the unit. Garo has rung for score in 20 and 100 (*rung bo-nga*, scores 5) a form similar to the Mon 6 *ka-rung*. The wr. Burman rhach 8 appears to correspond with the Dophla lag. Both are probably from rang, ram. The same form of the unit occurs in 100 of Karen *ka ya*, Singpho lat-sa, (10 × 10), Kuki ra-sa *k-lat*, Burman, Kami *ta-ra*, Angami *k-ra*, *k-re*, Nogaung ro-k-ru (10 × 10), Khari ru-k-rah,—corresponding with the Lau roi, hoi, Kambojan roa, roe, Anam ram. For 1000 Angami has *k-ra ke-r* (100, 10).

Lhopa has *phe-dani* for 10 in 30, *khe phe-dani* (score, ten), and *phe-dang* in 50, *khe phe-dang sun* (score, ten, three), forms probably corresponding with the Abor rang, nang.

There are some other and rarer remnants of the liquid unit. That dialect of the East Gangetic group which retains the strongest Mon-Anam element—Kasia—has an archaic and peculiar combination of numeral names. 1 and 2 are Vindyan as in the Mon-Anam dialects. But while the latter have also adopted the Vindyan 3, Kasia retains a Himalaic unit in 3, lai, which is evidently a variety of the liquid unit of the Mon-Anam family. It recurs in 9 *han-dai*, which I formerly considered trinal, but which is more probably denary (1 from 10) like the other forms of the Chino-Himalaic 9. Chong preserves the same form in 10, rai, and Lau in 100 roi. In the Kasia 6 the unit has also a somewhat peculiar form *hin-rui*; *ka-d* 10 may also be Mon-Anam, but its resemblance to the Yuma Gangetic *ka-t* &c. makes this doubtful. The Kasia form of 3 and 9 is retained as 1 in the Play Karen lay (Maplu na). The archaic prevalence of a liquid unit in 3 explains the otherwise anomalous liquid in the compound 5 of Bongju and Takpa. In the Bongju rai *ngakar*, rai agrees in form with the kasia lai 3, and as nga is the Chino-Himalaic 2, the name is the full archaic compound 3, 2. In the Kuki ru-nga-*ka* the 3 has the form of the unit that is common in 6 (*ru-ka*): while another dialect has ra-nga. Mijhu has *ka-lei* 5, *ng-run-si* 50 (5, 10). In the Takpa lia-nga, lia would also appear to be the unit and not the dual. The Abor *pi-la-ngo-ko*, *pi-li-ngo-ko*, despite the accordance of *pi-li* with

the common dual, must now be classed with the Takpa, Kasia, Bongju and Kuki names, and the *li, la* referred to the liquid unit preserved in *ling, rang, ying* 10, and *nang* 9,—the slender form being also, as we have seen, that of the Ahom 1, *ling*.

This identification of an archaic 1 in the disguise of a common form of 2 leads to another important correction. We have seen that the liquid was one of the most ancient and widely diffused unit forms in the South, and that it occurs with the archaic labial prefix,—*p-ram, p-rap, p-lag, pi-la, pi-li* &c. In Tibet it is still current as 1 in the Horpa ra. From the analogy of all the other Chino-Himalaic names for 100, those of Gyarung and Horpa, *parye, rhya*, must be the unit; and their true classification would now appear to be with the secondary liquid form and not with the primary guttural\*, however strongly the Bhotian *br-gya*, the common softening of *gya, gye* to *ya, ye*, and Mr. Hodgson's orthography (*Par-ye, r Hya*) may be considered to support my former analysis (*par-ye, r-hya*). That these names are *pa-rye* and *rhya* is confirmed by the Mikir *pha-r*, corresponding with the more common *ta-ra, ta-ya* of the adjacent dialects. This recognition of a liquid form of the unit Tibetan names for 100, necessitates the recognition of an obsolete liquid form in 10, and this throws a new light on the liquid forms found in 8. The Bhotian and Manyak 8 are clearly 10, and it may now be inferred that the Thochu *kh-ra-re* (ra 1 Horpa), the Horpa *rhicee*, and the Gyarung *o-ryet* (=rye 100) are also 10. This inference also involves the similar southern names, *p-rah* Kasia, *p-re* Gurung, *Murmi, re-ya* Kiranti, *ra* Milchanang (also 100), *cha-ria* Shindu, *riet* Kuki, *riyat* Mru, *rhach* Burm. &c.† Taving has the same amplified vowel but the *-m* final in its *e-lyem* 8 (comp. *e-khing* 6). If this conclusion be the correct one, the only names for 8 in which 2 is preserved are the ancient Dophla *p-lag nag* (itself a strong illustration of the mode in which the forms of the unit and dual approximate †), the Abor *pi-nit* and the Mikir *nir-kep*.

The Gyarung and Horpa community of numeral forms found in 100 and 8, occurs also in 7, the Gyarung *ku-sh-nes* being an old Sifan form similar to the Horpa *z-ne*, with the current guttural prefix superadded. Both also retain a guttural unit, Horpa in 10 and Gyarung in 1. The Sifan dialect which had the form *pa-ryet* &c. in 10, 8 and 100, may have originated the similar southern forms found in the older Yuma dialects, Mru, Shindu, Mikir &c. The Gyarung element in the general glossary of the older East Gangetic tongues we have seen to be strong. The Mon-Anam *dap, dam, ram* and its derivatives belong to an older movement, but amongst the contracted forms it is difficult to separate those of Mon-Anam from those that may be of later Sifan origin. The East Gangetic

\* But these *r* forms may have been from the *g* forms directly, and not through the dental or sibilant. *G* and a guttural *r* are phonetically close to each other, and the passage of *g* into *r* and that of *r* into *g* are common.

† The other languages in which 10 occurs in 8 with the liquid form are Changlo yen (for ren), Dhimal ye, Limbu yet?, Sunwar yoh?, Kami, Kumi ya, Kyau ruct, Shindu ria, Kuki rai, riet, get (*g* for *r*).

‡ The Nogaung *li-ri* 40 (*pha-li* 4 Khari, *ru, lu* 10 Nogaung, Khari) is a similar example of an euphonic assimilation of slender forms. In the Khari *li-rah*, 10 retains its proper form (*ta-rah*).

liquid 10 appears to be a Mon-Anam remnant. Thus Khari has nam in 50 and rah in 10; and the Burman *ta-ra* 10 can hardly have a different origin from the Anam *t-ram*; or the Nogaung *ta-ru* 10, *ro-h-ru* 100, from the Mon *k-lom*. The only forms that are possibly later Sifan, appear to be those which have both the final t and the amplified vowel which is a remnant of the *rh-, ry-* [=gh, gy] forms of Horpa and Gyarung, and those which are clearly derivatives from the former. The Takpa *lia* of *lia-nge* 5 may be one of these remnants, as it agrees with the Shindu *ria* in 8, Horpa *rhya* 100, *hiée* 8, but the Taying *lyem* renders this doubtful. The Takpa *li* of *kha-li* 20 may be from a corresponding obsolete 10. But on the whole the majority of the forms appear to be those of an archaic Sifan system which had them in 1, 3, 5, 6, 8, 10 and 100 as modifications of the older dental and sibilant forms, the latter also remaining current in some numbers or dialects.\* To this system the remnants in Mon-Anam, in many of the Abor-Yuma dialects and in some of the current Sifan are, in general, attributable. If the Abor-Yuma liquid 10 belongs to the early Mon-Anam era and not to a later Sifan, the Abor-Yuma 8 must be associated with it, and with the remnants in 3, 5 &c.

It is not always clear whether the vocalic forms are contractions of those in -m or of those in -k. But it is certain that both were early current. While the former agree with the Chinese 3 and 10, the latter agree with the Chino-Himalaic 6. Their full archaic forms *ruak*, *louk*, *luk*, *ruk*, *nuk*, *rak*, *lak*, *lat* are similar to the unit preserved in the com. Chino-Himalaic 6 (1 for 5, 1), *luk*, *lak*, *lok*, *rok*, (whence *ru*, *ri*, *ni*, *ne* &c.) A nasalised form similar to *nung*, *loun*, *ling*, is preserved in the 6 of Mon *ka-rung*, Chong *hu-dong* and perhaps in a Gond dialect *sa-rong*, a distribution which proves its currency in the era when the Mon-Anam family possessed the Gangetic valley. The Ahom slender form *ling* is identical with the Abor *ling*, *ying* of 10, 20.

The liquid forms extant in 1, 3, 5, 6, 8, 9, 10, 20 and 100 of different dialects may be recapitulated,—*dap*, *dam*, *rap*, *ram*, *nam*, *lom*, *lyem*, *dong*, *rang*, *rong*, *nang*, *rung*, *nung*, *nyong*, *nun*, *nul*, *run*, *loun*, *lon*, *ling*, *ying*, *rok*, *ruk*, *ruak*, *rak*, *rik*, *luk*, *lak*, *lag*, *lak*, *lat*, *dai*, *rai*, *lai*, *roi*, *lei*, *rou*, *rha*, *ra*, *ya*, *ru*, *ro*, *ri*, *re*, *r*, *la*, *lu*, *li*, *na*, *riyat*, *riet*, *ryet*, *rye*, *rhya*, *rhiee*, *ria*, *lia*, *riu*. While some of these are local and of uncertain age, many are clearly referable to the archaic migrations of the province.

The later secondary forms of the unit present considerable difficulty. In several dialects they cannot be referred to any of the extant older forms, and it is certain that there has been some transfer of these latest forms from dialect to dialect. But the question how far such transfers can be clearly traced is not easily answered, for the same phonetic series of mutations has taken place in all the languages of the province, however

\* The direct passage of the sibilant into the liquid appears to have characterised the old Tibetan phonology more largely than I had ascertained when comparing the miscellaneous vocables. The minuter comparisons I have since made in grouping the southern dialects have shown that several of the liquid roots are only variations of the sibilant, and that exceptional sibilant and dental forms which I had doubtfully referred to the prevalent liquid roots are, in reality, remnants of the older phase of these roots. In Manyak, Namsang &c. *s*, *z*, *ch*, *j* have a strong tendency to become *r* or *l*.

irregular its operation on the different vocabularies has been in degree, in extent and in the particular vocables subjected to it. In the Chinese numerals the older secondary sap of 10, sam of 3, appears to be the immediate parent of the current 1 and 7 in their older form *chak*, *chat*, *tsat* &c.,—that is 1 and 7, like 3 and 10, had the unit in the form *chap*, *sap* &c. before it changed to *chak*, *chat* &c.

The common form in 6 *luk*, *lok*, is distinguished by its vowel from 1, 3, 7, and 10, and its older form *duk*, was probably from *dup*, *dum*, corresponding with the Bhotian *dun* from *dum* 7, (*sum* 3) and with numerous other Himalaic forms in *u*, *o*. In the older Tibetan system the form of the unit in 6, *khum*, *chum* &c., appears to have corresponded with that in 1, 3, 10 &c. The *Gyarung tok*, and the original of the *sp. Bhotian thu* as preserved in *tuk* of *Milch.*, *Serpa*, *Limbu* and *Kiranti*, and *dok* of *Garó*, must have been derived from China at a later period, and when *dup*—probably the remnant of a distinct dialect from that in which a forms prevailed—had taken the form *duk* in Chinese.

The *Gurung tu*, *Lhopa* and *Murmi dhu*, *Dbimal tu* and *Bodo do*, are contractions of the same form. Their diffusion in the south appears, from their distribution, to be not older than the later Bhotian migration. The southern Bhotian dialect of that period must have agreed with the present spoken dialect of *Lhasa* in having a dental form.

The *vr. Bhotian* has a distinct form *d-ruk* agreeing with the current Chinese, and to it the *Manyak t-ru* is referable. The common *Gangetic* 6 is also derived from it. This form is certainly separated by a very slender phonetic boundary from *duk*, *tuk*, *chuk*, *suk*, but as it is also the Chinese form, *luk*, and its great Southern diffusion attests its antiquity and persistency, there seems no reason to doubt that it was the form used by the southern Tibetan dialect which originated the predominant *Gangetic* system. The *Gangetic* vocabularies combine *Sifan* with *Bhotian* words, generally in older forms than the current or even the written *Bhotian*, so that 6 may be referred to the *Bhotian* element in the parent south Tibetan dialect. The form *d-ruk*, is from *du-ruk* (comp. *d-gu* 8 with the *Takpa du-gu*), and *du* is a euphonic secondary form of the guttural (*ha-*, *ga-*, *ta-*, *da-*, *ku-*, *gu-*, *tu-*, *du-* &c.) The southern forms are *k-ruk*, *k-ru*, *k-ro* (*Singpho*, *Garó*, *Chepang*, *Takpa*), *ta-rok*, *ta-ru*, *the-rok*, *chu-ru*, *so-ru*, *tu-ru* &c.

The preservation of other varieties of 6, in which the unit has older forms both primary and secondary, and the wide prevalence of the Chinese form, make it evident that the latter was carried westward by distinct movements from those which gave primary and secondary *-m* forms to *Tibet*.

The dissemination of the later forms of the Chinese 1 and 7 is much more doubtful. The *Bhotian chig*, *chik* has certainly a close resemblance to the Chinese *chit*, but it may be from a native *chuk*, *chum*. Possibly *chuk* is of the same age as *tuk* &c. 6, and was a Chinese form of 1 in the dialect which gave *tuk* to *Tibet*.

In the South there are no forms clearly referable to the *Bhotian chig*, *chik*, save the *Kinawari* and *Serpa chik*, *Limbu thit*, *Newar chhi*, and *Lhopa chi*.

The common form of 1 and 10 in the latest diffusive *Gangetic* system was similar to the older secondary Chinese forms in 7 and 1, but it appears nevertheless to have been local. It is well preserved in 8 of *Toung-*

thu, Khyeng, Sak, Tablung, Namsang, Singpho, Burman, Bodo, that, sat &c., and in later slender forms in several of the allied dialects. Similar forms occur in 10 and 1; but under the influence of the later phonology they have, in several dialects, become slender like the 1 of Chinese, Bhotian and Gyarung. Both broad and slender forms are sometimes found in the same dialect. Thus Bodo retains *jin* in 8, but in 10 has *ji*, in 1 *che*. Garo has *chet* in 8, *sha* in 1, *chi* for 10 in 11, 12 &c., both being combined in *chi-sha* 11. Namsang has *i-sat* 8, *i-chi* 10, *van-the* 1; Singpho *ma-tsat* 8, *si* 10; Burman *tach*, *tit*, *ta* 1, *shyit* 8, *she* 10. The slender form is evidently borrowed in some of the dialects. It is clear that the broad forms have not been derived from the current Bhotian *chik*. The older Chinese form of 7, identical with some of them, is not found in Tibet. It is probable therefore that, like these Chinese forms, they are directly referable to the native labial form *tham*, *tsam*, *sam*, *sap* &c. The Tengsa group preserves *sep* in Tengsa, corresponding with *chet* in Khari, while Mikir retains a primary form *kep* in 8, 9 and 10, and a similar form is found in the Kiranti, Chepang and Lepcha 10. The Nogaung *tang* is an intermediate form between *tam* (a Himalaic form of the unit still current, as we have seen, in 10 and other numbers, both in Tibet and the South) and *tach*, the old Burman form. The *com. tsat*, *sat*, *chat* &c. like the slender Burman *tit*, are but later variations of *tak*, *chak*. This form is the distinctive one of the latest East Gangetic (Bodo-Singpho) band, and has been communicated by Burman to some of the Yuma dialects, as it is found in the 8 of Toung-thu *that*, Sak *tseit*, Khyeng *sat*. These dialects have received numerous other Burman vocables. Whether the common vocalic forms in 1 and 10 were contracted from *-m*, *-p*, or from *-k*, *-t*, forms, is uncertain. The labial forms may have become contracted in 1 and 10 before the *t* forms were evolved in 8. For example *sha* 1 of Garo may not be from *shat*, *sat*, the current East Gangetic form in 8, but from the older form *sap*. The same uncertainty attends the Tibetan vocalic forms in 1 *ta*, *ti*, *ra*. In the South the evidence is in favor of many of the vocalic forms being from *sham*, *tam* &c., through *shang*, *tang* &c. In 100 Arung has *chang* and Kuki *shang*, *shan*; in 20 Dophla has *san*, *sang*. The cognate dialects have *sha*, *cha*, *tsa*, *tha*, *sa* in 1, *scere* or 100, (Nogaung, Tablung, Mulung, Joboka, Muthun, Namsang, Singpho, Manipuri, Bodo, Garo, Dhimal,) and it is clear that they are referable to the current forms in *-ng*, *-n*,—of which Nogaung, as we have seen, preserves an example in 1,—and these to the widely prevalent labial forms common to the Mon-Anam and Tibeto-Burman systems. The *u* forms appear to be chiefly of ancient Bhotian origin—Changlo being an example of a highly Bhotian system—and the *a* forms to be chiefly Mon-Anam, Sifan and Chinese.

Notwithstanding the examples of the passage of guttural into dental forms in the South and the possibility of this having happened in many cases of which no evidence remains, I think there can be no doubt that the most prevalent Himalaic forms of the unit are not local variations of the guttural, but were derived from the Chinese system after secondary forms had been evolved in it. The prevalent forms of 3 preserved in that numeral in Tibeto-Burman and in the 5 of Mon-Anam, agree with the Chinese 3 and must be referred to it in its existing *s* form and in older *t*, *d* forms. It may also be held as certain, from the abundant remains of this type of the unit,—not only in 3 and 5, but in 1, 6, 7, 8, 9, 10,



20 and 100,—that when the secondary Chinese system was transferred to the Himalaic province, s-m, s-p had not become fixed in 3 and 10, but that the t-m, d-m, s-m forms were the current unit.\*

The conclusions at which we seem justified in arriving are before as follows. The typical form of the most prevalent Tibeto-Burman and Mon-Anam unit is dam, dum, t-m, sam, sum, ram, lom &c. The common unit of both families had therefore the same Tibetan origin. Its source appears to have been the Chinese system in its older secondary form, that is when 1 and 7 as well as 3 and 10 had the forms dam, tam, sam, and when 3, 7, and 10 must have still been compound. The Chinese 6 of this era may also have had the same form of the unit. At all events there are Himalaic remnants of it (Thochu, Horpa, Mijhu).

The purer Mon-Anam appears to have been distinguished from the later, while it was affined to one of the older, groups of Tibeto-Burman by the tendency to l, r, n forms in preference to sibilants. From the mode in which its forms of other words are intermixed in the Southern Tibeto-Burman vocabularies with the proper Tibetan forms, it is probable that the liquid 10, 100 &c. found in several of these vocabularies, or the liquid tendency in which it originated, was derived from the Mon-Anam family or from a common archaic East Himalaic or Sitan source. It is chiefly found in the older Yuma-Gangetic dialects, and cannot be derived from the prevalent forms of L.† The Dravirian labial unit of Mon-Anam is also found as 1 and 10 in some of these dialects,—Manipuri ma 1, pal 10 (in 8 and 9), one of the Khyenz dialects mu 1, Mijhu h-mo 1, ham-bum 4 (bon Anam), Angami po 1, Muthun, Joboka, Mulung and Tablung 10 han, pan, Mru mi in pi-ra mi 20 (2, 10), Kumi 10 in a-pum-re 20, m-phai-re 30, wu-pa-lu-re 40 (pa-lu 4), wi (= mi Mru) in wi-pa-ri 50 (pa-n 5), wa in chum-wa-ri or wai-re 100 (10, 10), Sak ts-fu 9, Kiranti thi bong 10, bla-g-ga 8 (ho-k Mon, vo-gu Yerukala, ba-gu 2 Savara) Murmi chi-wai 10, Sunwar s-wai-ka 100, Nancowry fuan 4, in-fuan 8, thu-ful 6, Cor feun 4, tu-tod 6, a-wera 8. Limbu and Kiranti phang 9 (10 for 1, 10).

The primary guttural forms retained in different numbers in so many dialects, and also passing directly into the sibilant, indicate an older transfer of the Chinese system to the westward than that which produced the Mon-Anam and current Tibeto-Burman. The preservation of khung in 6 is itself a strong proof of a distinct migration prior to the era when dental, sibilant and liquid forms alone prevailed. Both in the Mon-Anam and Tibeto-Burman dialects 6 is either the current Chinese form lak, luk, or its immediate parent duk, tuk, which is probably a derivative from dum, tun, through dung, taug. The Mon-Anam family in its Gangetic era had dong, rung in 6 contemporaneously with luk, and from the resemblance

\* In many of the southern dialects (Singpho-Bodo gr. &c.) the sibilant and dental of 1, 8 and 10 is referable to the guttural khun, khip, khing, khat, &c., but in others to the secondary Chino-Tibetan sum, sam &c.

† For example the old or written Burman rhach 8, ra 100, is evidently a distinct and in Burman an older form of the unit of 10 than the current 10 chhe, corresponding with the current 8 shyit and 1 tit. Dophla has the same 8 lag and 10 rang, and Burman must at one time have had a similar 10. Namsang has the same type in 1, 8, 10 and 100 as the current Burman 1, 8 and 10, but in 20 preserves ruak.

of the former to current varieties of *dam*, *ram* &c. an early Mon-Anam dialect may have had its prevalent -*m* unit in 6 as well as in other numbers.

The Abor and Yuma dialects preserve many of the most archaic forms of the Himalaic vocables. A large number are less contracted and softened than in the other groups, both Tibetan and Southern. They have been less affected by the later phonetic and glossarial modifications, whether spreading from Tibetan or from Southern sources. The guttural 1 and 6 of Abor &c., the 10 of the Mru 30, and the common guttural for *score* may therefore be considered as remnants of the first Tibetan system that was carried to the South, and an evidence of the very great antiquity of the migration. How far this early form of the Chino-Himalaic system was disseminated in the South cannot be ascertained. If it had been that of the first Himalaic tribes that became predominant in the Gangetic valley and in Ultrahindia, it is probable that some distinct traces of it would have been left in the Mon-Anam dialects. Although not found in the existing much mixed Mon-Anam systems, it occurs in others which retain some Mon-Anam numerals. Of the three hypotheses, 1st, that a Himalaic system having this unit preceded the Mon-Anam, 2d, that it was contemporaneous with it, one dialect or number having the guttural and another the dental and liquid unit, and 3d that it immediately succeeded it,—the 2nd is the most consistent with all the facts. The Mon-Anam vocabularies are largely and closely connected with the old Tibeto-Burman of the South, but the Dravirian and the peculiar native traits of the former as well as their distribution, show them to have been earlier. The presence of numerals of Mon-Anam forms in the older Tibetan systems of the South is in accordance with the general character of the vocabularies. But as the Tibetan glossary of the period when the Mon-Anam migration took place must have differed little from that of the first Tibetan tribes who followed them across the Himalayas, it is probable that the guttural unit was from the first coeval in the South with the sibilant and liquid. At present, however, we have no direct evidence that it was, the only native Mon-Anam unit that has been preserved being the dental and liquid; and it is therefore possible that while the more eastern parent of Mon-Anam had a secondary Chinese unit, a Tibetan dialect retained the archaic guttural unit of the Chinese and afterwards carried it south. In some of the Sifan dialects the guttural unit appears to have been succeeded by the liquid, and the earlier dialects that were carried south probably possessed both forms. The Gyarung-Horpa series still combines *ge* in 1 of Gyarung and *ga*, *ka* in 10 of Horpa, with a liquid form in 1 of Horpa and in 8 and 100 of both. The older Abor-Yuma systems appear to be referable to the Gyarung-Horpa. The Dophla system with the guttural in 1 and 6 and the liquid in 8, 10 and 100, must be an example of the earliest Sifan systems that were carried south. The difference between these and the cognate Mon-Anam appears to have been, that the latter had entirely lost the guttural unit while in the Sifan system it was used along with the liquid.

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The most remarkable point in the history of the dual is the prevalence of a secondary form in 4 and of a primary one in 2 and 7. The questions that remain to be answered are, when and how this difference arose,—were the same forms ever current in all the numerals of the dual series,—

and how many versions of this series were carried to the South? On a cursory glance at a comparative table of the numerals, it might be inferred that, in all the dialects, the common broad form in 2 and higher numbers, *ngat*, *nhat*, *nga*, *ngo* &c. preceded the slender current form *ngik*, *nhit*, *ni* &c.; and that the latest and most contracted nasal form of 2 *ni* &c. was the parent of the *li* of 4. This was doubtless the phonetic order of the mutations, if *li* be from the nasal root. But it by no means follows that because *ni* is now the current 2 in several dialects, it is the immediate parent of the *li* current in the same dialects. The historical succession of the forms of a root in a particular dialect, has no necessary dependence on the absolute philological succession. A slender form may be contemporaneous with a broad form in one group for thousands of years before it is evolved in another group; and it may be communicated, in a special application, by the former and received by the latter as a substantive vocable while the only native forms continue to be broad. In a numeral series it is of course possible for a unit root or a dual root common to several numbers, to suffer phonetic changes in one number while it adheres to the old form in the others. And it might, at first sight, appear that the *li* of 4 was an instance of the kind,—*ngok* &c. having, by segregation and successive phases, attained that form in 4, but stopped at an older segregated one in 5, while a still older remained current as 2 in 7. But many facts concur to show that *li*, *lu* originated in one dialect or group and that it was received as a substantive name for 4 into other dialects which retained or acquired older forms of 2. Amongst these we need only at present refer to the almost universal prevalence of the *l*, *r* form in 4, its retention of the labial prefix where 2 and 7 have the guttural, and the traces of an archaic labial prefix in the unit series.

The frequent passage in the Himalaic vocabularies of the sibilant roots of Chinese, Scythic, Chino-Scythic and Himalaic itself, into liquids, appears to afford the true clue to the history of the numeral 4. The sibilant forms, I now think, in accordance with my first opinion \*, must be regarded as the primary ones and the liquid as the secondary. All the Chinese dialects preserve the sibilant. In Tibet the passage into the liquid is illustrated by the Thochu *zha* and Horpa *lha*. The Southern forms appear, with a few exceptions, to be all referable to one dialect. The first great migration must have brought the form *pu-li*, *bu-li*, *ba-li* &c. † which became all but universal in the South; and its Tibetan type in the primary form is preserved in the Bhotian *b-zhyi*. The highly Bhotised Gyarung has the same form in 40, but liquid as in the South, *p-li*. As the identification of the Chino-Himalaic 4 with the com. dual of 2, 5 and 7 was founded on the hypothesis that the sibilant form was a modification of the liquid, 4 must now be considered as involving a separate root, for the primary form of the dual, *ngok* &c., cannot be derived from *si*, *zhyi*, *zha* &c. As the liquid elements in 8, formerly considered to be 2 in the 4 form, have been found to be forms of the unit, it is not strictly necessary, for the purposes of this Section, to pursue the enquiry why the Chino-Himalaic 4 has a distinct root from 2. If *si*, *ri*, *li* &c. of 4 were really a distinct

\* App. to ch vi "Comparative Table of Chinese and Tibeto-Ultraindian numerals" pp. 23, 24. See also Sec. 4.

† Or its older form *bu-lu*, from a Bhotian *bu-zhyu*.

‡ Unless the Lau song, *sang* be the same root.

root for 2, it must have become obsolete in that number when the system became that of Tibet †, and no remnants of it are preserved in other numbers. The latter circumstance is hardly consistent with its being a primary dual root of the system. On the other hand if it be a unit it is identical with the common sibilant and liquid forms of the Chino-Himalaic unit, and the Chinese system must have had a trinal basis throughout,—that is 4 must have been 3, 1, in like manner as 5 was 3, 2, and 7 was 6, 1. This mode of forming 4 is rare, but examples of it occur in the N. E. Asian and African provinces; and the Vindyan 4 is also trinal. As the Chino-Himalaic sibilant 1 and 3 has forms precisely similar to 4, both in 3 and in other numbers, I do not hesitate to transfer 4 from the dual to the unit series.

When the first Himalaic dialect was carried south a broad o, u form of the dual was common to 2, 5, 7, and, probably, to 8; and it appears to have had the labial prefix throughout, as it preserves it in 5, and in a few dialects later forms have it in 2. The unit associated with this form of the dual must have been one of the oldest carried South, and as the later form was contemporaneous with the Tibetan gyud, ryat &c, it is probable that the ngo, nbu, dual was that of the system which had khung &c, as the unit. In the Abor group both khung and ngo (2) are preserved.

When the next great migration took place the predominant Tibetan dialect had a numeral series which had the form nag &c. in 2 and in the quinary 7,—associated with tam, sum, ram &c. in 1, 3, 10, and in the denary 7; and the labial prefix had given place to the guttural. Dophla retains *ka-nag* in 7, *nag* in 8; and in 2 Burman wr. has *nach*, Tengsa *a-nat* (for *ka-nat*), Changlo *ngik*. With a few exceptions the Southern Yuma-Gangetic forms are modifications of this form. In Tibet the broad vowel is retained in Thochu and Manyak *nga, na* and in the Horpa 2 of 20 *na*. In the other Tibetan dialects and in most of the Southern ones slender and contracted forms now prevail. The change has generally been local. The Horpa *z-ne* and Gyarung *sh-nes* of 7 are from a form of 2 similar to the Gyarung *hi-nis* in 20 and Bhotian *g-ny* is 2. Both are probably from one dialect, perhaps Horpa, which has a similar form of the prefix in 9 *s-pa*. It has *nge* in 2 which may have been *hi-nges*, whence *sh-nes, z-ne*. The Gyarung *sh-nes* of 7 is not the current *ka-nes* 2, but a contracted vocable, as it takes the current prefix *ka-sh-nes*. The later southern forms have many varieties, and some similar to the Tibetan, but they are all of local growth. Thus the Bo'o and Caro *s-ni* 7, although so close to the Horpa *z-ne*, is from *si-ni* preserved in the Mikir *hi-ni* 2 (Singpho *si-nit* 7); and *si-ni* is from *ki-ni, gi-ni* Garo. In the Yuma 7 *n* becomes *r*, but the prefix identifies it with these Gangetic forms. Comp. Tengsa *ta-ni, Sak tha-ni, Shin-du sha-ni, Kani, Kuki sa-ri* &c. The associated form *nit* &c. shows that *ni, ri* belongs to the later *ngak, ngik, ngit* series in 2.

The Himalaic form of 2 brought south by the Mon-Anam family appears to have been the broad form with the labial prefix preserved in the Tibeto-Ultra-Indian 5. In the Bongju, Kuki, Tai-ka and Abor 5 and in the Dophla 8, this form of 2 is conjoined with the liquid 1 (for 3 and 10), whence it is clear that when that form of 1, 3 and 10 was current, the Chino-Himalaic form of 5, *ngo, nga*, was current as 2. If the Lau song, *sang* is from an *l* or *n* form it was probably one of the varieties of the Mon-Anam 2. The current 2 in all the other dialects

of this family is the Dravirian labial. Although the traces of the original Mon-Anam 2 are not very strong, they are decided enough to lead us to the conclusion that the dual had a form similar to the prevalent Himalaic 5, or, in other words, that this was the form current in south Tibet at the era of the first great Himalaic migration. Although the labial prefix was that of 2, 4 and 5, and the unit also had it, the Mon-Anam 6 and 100 (*k-lom*, *t-ran*) show that a unit having the guttural, passing into the dental and sibilant, prefix was early current. The Bhotian *ā-gu*, Thochu *r-gu* 9, is another form of the unit with the same archaic secondary form of this prefix.

The later slender forms, both of the prefixes and roots, connect many of the southern systems, although the movements and special borrowings disturb the agreement thus induced. The progress of aspirate, slender and contracted forms of the guttural prefix is illustrated by the dual in 2 of Garo *gi-ni*, Mikir *ki-ni*, 7 of Singpho *si-nit*, Nams. *i-ngit*, Kasia *hi-nian*, Garo and Bodo *s-ni*. This group or movement centres in the western extremity of the Garo-Singpho band. Another well marked group, which breaks through this band or has been broken through by it, is distinguished by similar changes in the broad forms of the prefix. In 2 Angami has *ka-ne*, the adjacent Tengsa group *a-nat*, (Gyarung *ka-nes*). In 7 the Yuma dialects have *tha-*, *shu-*, *sa-*, the Tengsa gr. *tha-*, *ta-*, Chepang and Sunwar *cha-*. The original *ka-* is preserved in the broad Dophla *ka-nag*. In 9 the Yuma group has *tha-*, *ta-*, Chepang *ta-*, Shindu *chu-*, Singpho *tse*, Garo *sh-*, Bodo *ch-*. In 6 the Yuma gr., Tengsa gr. and Lepcha have *tu-*, Shindu *chu-*, Ang. *so-*, Mikir *tho-*, while Singpho, Garo, Takpa and Chepang retain *k-* and Mon *ka-*.

The unit 7 (6, 1 or 1) is found in Chinese and Lau; in Thochu, Manyak and Bhotian; in Changlo, Lepcha, Milchanang, Mijhu and Mikir. The dual form (5, 2, or 2) is found in Tibet in Horpa and Gyarung (2), and in nearly all the Southern dialects. It was the form of the dialect that gave the prevalent numeral series to the South, and it corresponds with the 2 of that dialect, thus proving that 7 was still quinary or dual at the period of the great Tibetan migration, or immediately before it. No example of the full form is preserved. The quinary Kambojan *p-rām pil* (5, 2) belongs to the earlier Draviro-Himalaic system of the South.

The principal inferences bearing on the historical relation of the Himalaic to the Chinese numerals are as follows. 1st. The earliest Chinese dialect that gave numerals to Tibet had the primary guttural form of the unit either alone or with later forms. It is still current in 10 of Horpa, in a 1 of Gyarung, in 7 of Manyak and in 1, 6, 7, 10, 20 of some southern dialects. There is no direct or conclusive evidence that it was ever current in 3 or 5, either in Tibet or the South; although the close resemblance of some of its forms in 10 to the Chinese sibilant 10—and of the latter, and similar current cis-Himalayan sibilant forms, to the Chinese 3—make it probable that the earliest Chinese system of Tibet had guttural forms throughout. The 8 and 100 must have had similar forms of the unit, and not the labial of the current Chinese. The dual in this system must have had the form *ngong*, *ngang* or *ngok ngak* &c. 2d. The later Chinese phase, which was communicated to Tibet before the great migration to the South, is very distinctly marked by the forms of 3, 4 and 6.

Each of these is a peculiar modification of the primary form ; and the deviations from it and from each other are so considerable, that they must belong to an age long subsequent to that of the exclusive currency of guttural forms and when the system had become partly concreted. Whether these forms originated in one dialect or in several, their combination in a single current system cannot belong to the earlier eras of the formation. The form in 3, sam, sum, &c. must have long been the unit exclusively current in a Chinese system. The form in 4 is a later form, as it wants the final consonant ; the initial, however, having a stronger aspirate. The current form was probably preceded by one closer in the vowel to 3, like that preserved in Thochu, Horpa and some Southern dialects. The still later liquid 6 may have originated in a western Chinese dialect which had a similar form, lum, lam, lung, lang, luk, lak, in its current unit, and was associated with those ancient Sifan or East Himalaic dialects which possessed a similar unit and gave it to the South, but it is more consistent with the other forms of the system to refer it directly to sum, suk &c. Whatever may be the history of the production of the Chinese numeral system which ultimately had these forms fixed in its 3, 4 and 6, it is clear that, after they were so fixed, it became the most influential system first in China and Tibet, and then, through the great Tibetan migration, in the South also. The prevalent 4 and 6 appear to have always been concreted and substantial names in the Himalaic province, the connection between them and the unit having been lost before they were received from Chinese. The current form of 3, on the other hand, appears to have retained its unit power, after this late Chinese phase became that of the Himalaic province also, as it undoubtedly remained current with this power in 7 and 10, and probably in 1 and 8 also. The slender form of the dual current in the Chinese 2 in a contracted form is so widely prevalent in the Himalaic province in 2 and 7, that it must be associated, in the form nging, ngik &c., with the later Chino-Himalaic form of 3, 4 and 6. The vocalic but broad 2 of 5—which is almost universal—obviously belongs to the same phase. The current Chinese 1 and 7 appear to be later in form. The labial 8 and 100 were probably not possessed by the western Chinese dialects, until after the period when they gave the secondary forms of the unit to Tibet. They have no connection with the other Chinese numerals and no representatives in the purer Himalaic systems. It is probable therefore that this unit was preserved in a northern Chinese dialect—perhaps the Kwan-hwa itself—which became that of the predominant Chinese nation. The Himalaic systems present many examples of a similar persistency of a native or older form. Thus the Kwan-hwa system, in a late form and embracing this labial 8, has been widely spread over UltraIndia by the conquering Lau tribes, but the 1 and 2 are wanting, in the Lau dialect, native names taking their place. The northern dialects have the Chinese name in 100, but it has not established itself in the southern. \*

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\* As the forms of the same root varied from era to era in different numbers and in different dialects, and as these forms did not attain the character of independent names at the same period, any attempt to reproduce the system as a whole in its successive phases would be liable to the risk of associating some forms that may never have been current together

Further light will be thrown on the history of the Chino-Himalaic numerals when we compare them systematically with the Scythic, Caucasian and African. But our examination of the Chino-Himalaic, Semitic and African must be followed up by that of the Scythic and Caucasian, before we can enter on such a comparison. All the numeral systems of the Old World are more or less connected, and point to the diffusion of its earlier arts and civilisation, or of the races themselves, from one family. For example both the primary and secondary forms of the Chino-Himalaic unit are found in the other East Asiatic and the connected Western systems. The most important of the secondary forms sam, sum, sap &c. is so widely diffused that, on an examination of a few numerals, it might be thought probable that it was evolved from kam, kap, at a very remote period and before any extensive dispersion of the ancient Asiatic system. Both the primary and secondary forms certainly appear to have been circulated together over other provinces besides the Himalaic. But a comparison of all the Old World systems leads to the inference that the connection of the Chino-Himalaic with the Scythic and more distant numerals is through the primary guttural forms, and that the recurrence of identical secondary forms and types in different provinces is, in general, attributable to the same cycle of phonetic change having been independently repeated in each family of language. There are doubtless examples of a transfer of later forms from one family to another. But it requires strong evidence to establish

in a single dialect. If we were to assume that, at one time and while the names still remained compound, a dialect existed in which the primary form of the unit had been lost and sam, sap was its only current form, the trinal system might be thus presented.

I	1st series.
II	sam
III 2, 1	nga
	nga-sam
IV, 3, 1	2d series.
V, 3, 2	nga.sam-sam
VI, 3, 3 (or 5, 1)	nga.sam-nga
	nga.sam-nga.sam
VII 6, 1	3d series.
	nga.sam-nga.sam-sam

In all the compounds of the 2d and 3d series, the last word would be the distinctive and permanent one. The office of the first common term of each series would be merely to mark the series, and when a slight phonetic change was induced in the last, this would itself suffice to mark the series, and the first term would become a needless incumbrance. Thus if, from the action of the preceding elements of sound, or by acquisition from another dialect, the name of 1 became sang or sak, the sam of 3 would be enabled to dispense with the nga— not only in 3 but throughout the higher series of which it forms the radix. So, if the distinctive or final sam of 4 became sum, su or si, the initial nga-sam, or its remnant sam, might be rejected. In like manner a change of nga 2 to ngi would enable the distinctive nga of 5 to reject the proposed term or its remnant.

the foreign origin of a form that can be deduced from a native archaic type by the ordinary phonetic evolutions of the family.

The most widely prevalent of the older secondary forms of the guttural unit is *s-m*, *s-b*. Taking the Chino-Himalaic systems in their existing forms, it is clear that this has been the most prolific type of the unit. It was the current unit of the era when the present 3 became concentered. It is preserved in several dialects in 10, 8 and 5 and several common forms of the current 1, 8, 10 and the unit 7 (6, 1) are referable to it. It is the integral form of the latest Chinese unit, being preserved in 3 and 10, and in a modified form in 1 and 7. If any direct connection between the historical Chinese system and other systems of the Old World can be established, it must be through this form.

In 1 the Scythic systems have either the more archaic labial unit of Dravido-Australian—preserved in Chinese in 8 and 100, but obsolete as a unit when the system spread over the Himalaic province—or other forms of the guttural, dental and sibilant.

The most com. Scythic 3 has a primary guttural form or a modification of it, *kol*, *gur*, *kuj*, *chud* &c.; *tong*, *dong* &c. The labial and the liquid unit are also found in the 3 of some groups. Beyond the proper Scythic limits—or in those of the earlier or proto-Scythic movements—the Chinese form is found in Caucasian, *sa.mi*, *su.mi*, *ju.mi* &c., and also in Semito-African, but preserved in Egyptian only *sho.m*, *sha.m* &c., in which it is referable to a native Semito-African *kho.m* &c.

The Chinese 5, as we have seen, is a remnant of 3, 2, and the term when the present form of the system retained its full integrity, was *sam-ngo* &c. The 5 of the Mon-Anam dialects retains the 3 in the forms *san*, *chang*, *ram* (*f-r sam*). The Samoide *sam*, *sum*, *sab*, *saba*, *sobo* &c. 5 has the same form with the postfix *-ri:jo*, *-lik* &c.; but from the Tungusian *tong*, *sun* &c. and the Mongolian *ta-bun*, *tha-ba* &c. in which *-bun*, *-ba* is the common labial possessive postf., it is probable that *sobo*, *saba* &c. is identical with the Mongolic form and that is radically *so-bo*, *sa-ba*. Caucasian has the same form of the root *chu-thi* and in Abkhassian the same postfix *chu-ba*. The *s-m*, *s-n* form is very common in the African province, but as it is *k-m* in Semitic and there are examples of the passage of *k-* into *s-* forms, the latter appear to be historically connected, not with the secondary Chinese form, but with the primary Chino-Scythic *k-m*, *k-n*. The Ugrian and Turkish families have the archaic labial-unit in 5.

The Scythic forms of 6 appear to be all, or nearly all, quinary (5, 1 or 1) and not trinal as some philologers maintain. In this respect they accord with the Chino-Himalaic. With some of the Himalaic tongues, the Semitic, African and Indo-European they have, the older sibilant and dental form of the unit, and not the later liquid of Chinese and most of the Himalaic systems. It is not here intended to contest the trinal character of the Indo-European and Semitic 6, although the fact of 3 being itself the unit must render it uncertain—when other evidence does not exist—whether a unit form of 6 be a remnant of 5, 1 or of 3, 3. In African systems both forms occur.

The Ugrian and Turkish 7 has the later form of the sibilant unit as in Chinese, *site*, *sis*, *sat* &c. Some Ugrian dialects that appear to have the older form *shi-m*, *ta-b*, *sa-b* are contractions of *siz-im* &c. This form is also Indo-European *sa-p* and Semitic-African *sa-ba*, and in both



families the labial appears to be radically postfixal as in Scythic.

The Scythic 8 and 9 are mostly denary like the Chino-Himalaic, but some quinary names are also current,—Koriak, Kamschatkan, some of the Yeniseian. A form of 10 similar to the Chino-Himalaic sam &c. is found in a Samoiede 9 tu-ma, thun. *Ten* has the archaic labial unit; the primary guttural k-m as in some of the Himalaic names; and later secondary forms similar to the Chino-Himalaic t-s, l-k &c. But the connection indicated is through the primary forms. The Japanese, Koriak and Yukahiri names for 9 preserve a guttural unit like the Chino-Himalaic (kun, chun.)

On the whole we may conclude that the Scythic and other Aso-African numeral systems (excluding the Dravido-Australian) are more closely connected with each other than with the Chino-Himalaic; and are only connected with it through the older primary forms,—the Himalaic branch preserving examples of these similar to the Scythic &c. although lost in China.

The general conclusions at which we have arrived are these. The first Chinese dialect that gave numerals to Tibet preserved the guttural unit and a broad dual. The Tibetan system spread to the South while it retained this archaic form. The next Chinese dialect, or phase of the numerals, that influenced the Tibetan had the secondary unit sam, sum, sap &c. in 1, 3, 7 and 10. The Tibetan system which originated in it was the parent of the prevalent Mon-Anam and Tibeto-Burman systems. Two archaic movements to the south at different periods after this form was acquired, are traceable. The first had the labial prefix,—the unit had a decided tendency to pass into the liquid form,—and the dual appears to have had broad forms. When the older Sifan-Gangetic tribes followed the Mon-Anam, if indeed they can be separated, similar forms of the unit and dual were current in East Tibet. In the later and greatest Tibetan movement the guttural prefix prevailed,—the unit had broad dental and sibilant forms,—and the dual had broad, passing into slender, nasal forms.

Historically and more exactly stated, these inferences stand thus. When the Chinese system was received in Tibet secondary or contracted primary numerals had already become fixed and concreted, in their present forms nearly, in 4 and 9 of the unit series and in 5 of the dual. The enquiry into the phonetic changes and dialectic intermixtures which resulted in the establishment of these names, belongs to Chinese and not to Himalaic phonology and ethnology. But the current unit in 1, 3, 6, 7 and 10 (as well as in 8 and 100) and the dual in 2 and 8 were not so fixed. The numeral dialect that first took root in Tibet preserved a guttural unit, of which undoubted primary remnants are found in 1, 6, 7, 8, 10, 20 and 100. Some of the secondary Himalaic forms are also referable to it. The Himalaic forms gaum, khung (for khum), gyeb, kip, kep (whence kyok, gyud) are the originals, with modified vowels, of the Chinese chap, shap &c. 10, and the first Chinese dialect of Tibet must have had similar forms not only in 1, 7 and 10, but in 6 and 8 also. This dialect had probably the secondary form sum, sam in 3, as it is equally universal with the forms in 4, 9 and 5. It may have been fixed in this dialect; but that from which it was derived must have preserved it as the current unit in 1, 3, 7, 8, 10 &c. and simultaneously or subsequently communicated it to Tibet. In this dialect it appears to have assumed the form

suk, chuk, duk, luk &c. in 6 before it was carried to Tibet, as there is no remnant of the s-in, s-p form in that numeral in any of the Himalaic dialects. To the era when this phase of the unit prevailed a large number of the current Himalaic forms closely adhere, from which it is certain that during this era a Tibetan system was carried south. Among the best examples extant are the Bhotto-Changlo zum, dun of 7, Kuki sum, Sak su, Bhotian chu, Thocho du of 10.

In several dialects, Sifan and Southern, the sibilant changed to r. A dialect which had this form was very influential at one period. In the south the typical forms are lum, lam. The latter is widely current in various forms, one of the most common being rai. The antiquity of this contracted form appears from its being found in 1 of Play Karen, 3 of Kasia, 5 (for 3) of Bon-ju (rai) and Mijhu (loi), 8 of Milchanang, and Boujju, 10 of Chong, and 100 of Kambujan (roe), Siamese (roi, hoi), and Bou ju. The frequent occurrence of the r form in 8, or in 8 and 100, where 10 and 1 have the sibilant form, must arise either (1st) from the same dialect having at one time used both forms in 10, or in 1 and 10, or (2nd) from having replaced the liquid of 10 by the sibilant derived either from its own 1 or from the 10 of another dialect. Different forms of the unit have been used both synchronously and successively in several of the dialects for 1 or 10. Several express 10 by *one ten*, and in such a compound an archaic unit will be preserved in *ten* and the current unit in *one*. Thus in the Taying ha-long 10, long corresponds with the 10 of 8 and 100, while ha or sa is a com. current unit in 10 and 1 of Yuma-Gangetic dialects. The liquid appears to have been the 1 of the archaic Abor-Yuma and Mon-Anam groups. In many dialects it has been replaced in 1 and 10 by the sibilant that characterised the later diffusive system of the South. In others again the sibilant—whether from the Tibetan sum, or from the Tibetan gyum, khum, kap &c.—has been replaced by the liquid or by the Dravirian labial.

The numerous southern systems are reducible, in their Himalaic element, and both in root and prefix, to two great and one or two minor migrations from Tibet, not differing very widely in the forms brought by them,—to a few special lines of movement in the South,—and to some phonetic changes that have taken place since the migrations, and of which the centres and lines of dispersion are more or less distinctly marked. Precisely the same movements and changes are indicated by the distribution of the miscellaneous vocables that have been analysed and compared in the preceding pages; but before their evidence can be fully understood and historically marshalled, we must specially examine the Mon-Anam family, and the effects on all the southern Himalaic vocabularies of the early contact of the Mon-Anam dialects with the Dravirian of the Gangetic basin.

The preceding examination of the Himalaic numerals is far from sufficient to explain their history in the separate groups and languages. In each of these the names have been more or less affected by successive phonetic changes, internal and external, and the consideration of each by itself will throw further light on the ethnic movements of the province. In some of the dialects almost every numeral belongs to a different age or phonetic phase, so that the series has a similar character to that of a

geological section exhibiting a succession of unconformable strata, some derived from the waste of subjacent ones and others from distinct sources.

The annexed table of all the published numerals from 1 to 10 of the ancient Chino-Indian province, will greatly facilitate my readers in their comparisons.\* I regret that I did not commence, instead of finishing, my own by compiling it, as the means which it gives of noting at a glance all the variations of each number, and all those of each root, would have saved me much labour and not a few mistakes.

I have included the Dravirian, as the earlier Himalaic—the Mon-Anam—combine Chinese with Dravirian roots. Savara has several peculiar numerals and the analysis of the table requires some explanations. 1. The root *bo* occurs also in *bo-kodi* 20 (*one score*). 2. The guttural postfix shows this dialect to be very archaic. 3. *Ya-gi*, this appears to be 2 (for 2, 1), the other dialects, S. Drav. and Vind., having 1 (for 2, 1), 6 *ku-d-ru*. This evidently compound term appears to be an archaic full name, and as 6 is 1 in the S. Dravirian dialects, it is probably 5, 1; *d-ru* corresponds with the Kol *tu-ru*, *tu-r* which I have hitherto regarded as Himalaic. It is to be hoped that there are still some unpublished Vindyan systems which will throw further light on its origin. Meantime there are some indications of Dravirian affinity which have induced me, although with much hesitation, to analyse it in the Table as a Dravirian compound. *Ru* is the com. Drav. postf., but *tu* is not the *a*, *o* of the S. Drav. root (for *va*, *vo* 1). It may however be the *to* for 1 in the Telugu and Chentsu 9. *Ku* must be from an element in a name for 5. Dr. Stevenson in the Toda vocabulary furnished to him by Mr. Greiner gives *khu* 5. This is the guttural unit preserved in the Kol and Savara 10, and in 5 may either have represented 3 (3, 2) or 1 (4, 1) 7 *gu-l-ji*. The *gu* must here also represent 5 and not 2. 8 *ta-mu-ji*; *mu-ji* is the unit for 10 in the form occurring in the Tuluva *mu-ji* 3 (Brahui *mu-si*); *ta* is not a Drav. root for 2 and is probably a contraction of a form like *e-ta* (Toda, Mal.); the Telugu *e.ni-mi-di* is a similar compound.

## NOTE.

In lately issuing separately ch. v and the first 5 sections of ch. vi, I pre-faced it by some explanations, which I subjoin here also. The remarks on the Dravirian numerals will be found to elucidate the analysis of the Table.

"The readers who have accompanied me from the first do not need to be reminded that the publication of this work has extended over several years;

\* In writing out the names for the Table I overlooked the Rakhoing *kh-rauk* 6, and the correct analysis, which I had given in the text, of the Burman *khyauk*, *khyok* and the derivative Sak *khyouk* as *kh-yauk*, *kh-vok*, *kh-youk*.

The elliptic and varv composite Deoria Chutia numerals having also been omitted I give them here.

1 <i>du-g-sha</i> (Garo).	4 <i>du-gu-chi</i> (Ahom)	7 <i>du-gu-chi</i> (Ahom).
2 <i>du-ku-ni</i> (Garo).	5 <i>du-gu-mu-a</i> (Vindyan)	8 <i>du-gu-che</i> (Garo).
3 <i>du-g-da</i> (Garo).	6 <i>du-gu-chu</i> (arch. Him.)	9 <i>du-gu-chu-ba</i> (Garo ju).
		10 <i>du-gu-chu-ba</i> <i>du-g-she</i>

and that the increasing light thrown on the comparative characters of each family of language, during the revision of the section relating to it, has disclosed defects in the preceding ones. The continuity of publication and equality of treatment, originally intended, have been prevented by frequent and, at times, prolonged breaks in the attention I have been able to give to the subject, and, in some degree, by absence from the place of printing. The consistency which the work had when first rapidly written, as a statement of the opinions to which I had been led by a review of the other linguistic groups with reference to the Oceanic, has been lost by the lapse of six years, during which ethnology has not stood still, while I have been endeavouring to bring these opinions to the test of a more searching enquiry into the peculiarities of the different groups. A final revision, on the completion of the work, can alone restore its uniformity, by bringing all its facts and inferences into harmony with the knowledge of the time at which it publication may be concluded. It seems necessary, however, on the separate issue of the present portion, nearly two years after its earlier pages appeared, to warn the reader that some of its glossarial details are at variance with the more accurate acquaintance with the Himalaic and Dravirian roots which I have obtained from the minute comparisons in chap. vi. These errors will be best understood by a reference to that chapter, and especially to the comparative table of Dravirian and Himalaic roots which will be found in it. Some of the most important will be here noted, in addition to errors of the press and of haste.

“In some places I have used the word *Himalaic* in a large sense, and as the paragraph explanatory of it was omitted in the proper place, it is necessary to mention here that, for want of a better term, I have applied it to that large group of cognate languages and tribes which have immemorably clustered in and around the Himalaya and the ranges subordinate to it, and the preservation of the native character of which must be chiefly ascribed to the protection afforded by these mountains against the more powerful and civilised races of Eastern Asia,—Chinese, Scythic, Dravirian and Arian. An extract from a letter to Mr. Hodgson (July 15 1856) will illustrate the application of the name. “That my Mon-Anam group was the *Bengali* of the pre-Tibetan era (using Tibetan for the present Scythoid branch) and conterminous with the Vindyan Dravirian dialects is demonstrated; but I am not prepared to admit that Dravirian has not a distinct archaic ingredient, not derived either from the Mon-Anam or the Tibeto-Burman branch of what I have termed “Himalaic” till you can supply us with a more appropriate name. I conceive the Dravido-Australian branch of Scythic or rather of Chino-Scythic, to be of vast antiquity, and to have long preceded the descent of the Chino-Tibetan race from their trans-Himalayan abodes. Its strong Scytho-Caucasian element appears to me to show that it came round the western extremity of the great dividing barrier between middle and southern Asia. The Mon-Anam or *East Himalaic* stem was more Chinese and less Scythic than the later *West Himalaic* or Tibeto-Burman. All the earlier dispersed languages—that is, their mixed and sometimes hybrid descendants—have a core of primary roots, retaining a close resemblance to each other, and to those of the vocabularies that have remained in and near the primary abode of the Mid-Asiatic tribes. In this way I would explain the peculiar Chinese element of *Himalaic*, *Caucasian* (preserved by the mountains), and *Dravido-Aus-*

tralian, and the secondary Himalaic element of Caucasian, Draviro-Australian and other languages. The East Himalaic tribes probably occupied much of what is now eastern Tibet and western China; and though the precise line of their first southern migrations can hardly be traced with certainty, it is most consistent with the general character of the Mon-Anam glossary, to infer that they first descended into the Brahmaputra basin by the routes afterwards followed by the cognate Tibeto-Burman tribes, and thence spread over the Gangetic valley, mixing with the prior Dravirians, and, in the course of ages, eliminating the Dravirian physical element, though retaining Dravirian pronouns, numerals &c. Of course there may have been other more eastern migrations, but the Mon-Anam branch, which predominated and spread everywhere in UltraIndia prior to the Tibeto-Burman, had its primary *southern* home and nursery in Bengal or the Bhrmaputra-Gangetic valley, for its basis of Dravirian, and of a secondary or corrupt dialect of Dravirian, could have been obtained nowhere else."

The name is convenient in distinguishing the various elements of Asoneasian ethnology. The latest of the three formations of the Indian province has appropriated its only general name, which is radically Himalaic.\* This has rendered it necessary to adopt a second name for that formation which would otherwise have had the first claim to the designation of Indian,—the Dravirian. A third is required for the intermediate great formation of northern India and UltraIndia. Tibetan might be made to include the Indian and Transgangetic languages of the proper Tibetan type; but Mon-Anam has native characters which cannot be confounded with those of the more Scythoid Tibetan, and it is most convenient to use a distinct name for the formation as a whole.

December 1856.

#### ADDITIONS AND CORRECTIONS.

### ch. v. sec. I Pronouns and Generic Particulars.

*Page 1.* The calculation of chances here ascribed to Bopp, is Bunsen's. Alluding to the hypothesis that families of language had many distinct origins, he says that "the very roots, full or empty, and all their words, whether monosyllabic or polysyllabic, must needs be entirely different." "There may besides be some casual coincidences in real words; but the law of combination applied to the elements of sound gives a mathematical proof, that, with all allowances, that change is less than one in a million for the same combination of sounds signifying the same precise object." My objections to this position have been greatly confirmed by my subsequent comparisons of Chinese, Himalaic and Scythic roots. The number of the elementary sounds that entered into primitive language appears to have been exceedingly small. The same monosyllabic roots (phonetic) are repeated again and again, and meet us in every class of words. Like all other arts, language was, in its earlier stages, rude and narrow. Only material things were named; and to the undeveloped family of savages, few even of these required names. The same name sufficed for many objects having common properties. The growth of the analytic faculty must have been very slow. Most new names were but old ones

\* Sind (whence Hind, Ind) is a Himalaic root for *river*.

in new shapes. Distinct sounds were not in general invented or imitated for new conceptions. The conceptions and the names grew together from the old stock. The separation of families must have been the grand source of development, intellectual and linguistic. By this means chiefly the primary roots acquired variety in phonology and application. Each new family or tribe became the nursery of a new dialect; and the intercommunication of these dialects gradually enriched each with ideas and vocables. It was only by the aid of hundreds of sister-dialects that it became possible for any one dialect, after ages of growth, to make an approach to a language in our sense of the word. In every period of time and in every group of languages the same mutual action goes on. Hence, as the genealogy of every existing dialect ascends to the beginning of human speech in the world or in the race, and passes through long periods of barbarism and of a minute subdivision of tribes, its vocabulary has had innumerable proximate sources. Its discoverable homogeneity is in proportion to the narrowness or exclusiveness of the circle of dialectic development and interaction. It may be at a maximum in a group that has always remained secluded, so far as the geography of any any province admits of this, and although the seclusion has lasted so long that archaically distinct dialects have now few *vocables* in commons.

Page, 6. The new series of Vindyan vocabularies compiled for Mr. Hodgson by Mr. Nevill (J. B. As. Soc for 1856. p. 46) have the common form of the first pron. A-*nu* Konth, nga Savara, nai-*su* Gadaba, (noi-*nyo* poss., na-*nu* Yerukala, (na-*mu*, na-*mbu-ru*, pl., the second form combining the absolute and the relative pl, particles as in the Telugu mi-*ru*). The second pron. has the com. form in Gadaba no, Yeruk. ni-*nu* (pl. ni-*nga-lu*=ni-*ng-la* Badaga, a-*va-ru*), Konth yi-*nu*. In the Nilgiri series furnished by Mr. Metz, a du-*m* is given as a sing. form of the 3rd pron. in Toda, along with a-*du*, a-*van*, the pl. being a-*va-r* a-*du-m*.

Page 15. Savara supplies a new proof that the labial 2d pron. of Kol is a plural form used in the singular. It uses the same pl. form, in both numbers, a-*ma-n thou*, a-*ma-n ye* (pe-*n* Gad., a-*va ru* Ye uk ).

## II. Numerals.

The new Nilgiri and Vindyan series have led me to adopt some modification of the analysis in Chap. v. The reasons will be found in the sec. on the Mon-Anam numerals in Chap. vi.

1. The S. Drav. on-*ru* 1, I now read o-*nru*, and identify the root with vo of the 1 of Toda vo-*da*, Telug. vo-*ku-ti*, Nilgiri vo-*ndu*, vo-*dde*, and the com. pa, ba of 10, pa-*ku-du* &c. (p. 56). Yerukala has vo-*ndu* =o-*ndu* Karn. The Male pa-*ndo-ng*, o-*ndu-ng* 1 are similar forms. Comp. also the Telugu va-*ndu* 100. The Kol and Mon-Anam mo-*i* &c. 1 is the same root, with a different Drav. poss. postf.

2. era-*du* and the variations in 2 and higher numbers I now read e-*ra-du*, e-*d*, i-*ru*, e-*r* &c. e, i being the sole remnant of the ultimate root, which in its oldest form had *ra*, *ru* only as a postf. or second element, but afterwards superadded -*du* &c., probably on the earlier postf. concurring with the root remnant. Uraon has e-*no* 2, ma-*no* 3. From the facile and frequent elision of the initial labial it is probable that the full form of the initial root was be, bi. (p. 60.) The form be-*ra* &c. agrees with the Kol ba-*r*; and that ba is the initial root and r a second element or a postfix in bar appears from its occurring with the guttural postfix in

Savara, ba-gu, a form preserved also in 7 of Yerukala vo-gu, Kiranti bha-g-ya and Mon bo-h (2 for 5), and identical with the Telugu vo-ha of vo-ha-ti 1 and the com. S. Drav. 10. It is probable that in be.ra &c. 2, ra was a second archaic definitive or unit.

4. If 2 be e.ra-du &c., 4 must be na-lu, i. e. the secondary element without the initial one. The Kol po.n retains the root of 1 with the concentered consonant of the second element or primary postf. The form opun-ia is probably from op-pu.n, i. e. op 3, pu.n 1. The Savara contracted form of 4, vo.n-ji (1 for 3, 1) is evidently the full form of the Tuluva o.n-ji 1.

5. The Gadaba mo-lla-yi confirms the analysis of the Kol mu-na, mo-r &c. as 3 (S. Drav. mu-da &c.) for 3, 2.

8, e-ntu (not en-tu) as in 2.

The Kol i.r appears to be radically i.r-l, a contraction of the S. Drav. i.ra-du = i.ra-lu.

The exceptional Gond, Telugu and Tuluva forms must, in conformity with the amended analysis of 2, be read a.na-mu-r, e.ni-mi-di, e.na-me i. e. a.na, e.ni, e.na 2, and mu.r, mi-di, me 10 in the form of the unit found in the Kol 5, S. Drav. 3 &c.

The Telugu tommidi must be to-mi-di, i. e. mi-di for 10 as in e.ni mi-di 8, and to, a distinct root for 1, preserved also in the Chentsu to-ta, 9, and corresponding with the Drav. dental 3d pron. and def. (p. 56).

The Kol a-r of 9 has a for 1, as in the S. Drav. 6.

The identification of the S. Drav. on 1 with vo.n, and e.ra 2 with be.ra &c. complete the proof of the agreement between the basis systems of S. Dravirian and of Vindyan, and between both and the primitive labial system preserved in Australian. In its first form the system was simply the labial definitive, or the labial and liquid, repeated or compounded.

It is clear that the liquid in ba.ra, bi.ra, &c. 2, is very archaic, and that it early possessed a distinct numerical and plural force. In the Semito-African and Scythic systems, in which the same compound was the principal archaic numeral name, the liquid, changing to the sibilant &c., has been more stable than the labial initial, and there are strong reasons for regarding it as the essential element in 2. See App. to Sec. 6 of ch. v., *The Semitic and African Numerals*, pp. 18, 19, 43. See also a Note on the same subject inserted in the Journal with Sec. 1. of chp. v.

128. The note belongs to p. 129, and note † of p. 129 should be note \* of p. 128.

132. line 3 from the bottom for pishik read to-pisa, and in the following line, for to-pisa, read musa, mus.

137. The substantive root in the name for the *Buffaloe* is the labial. The liquid is the root for *water*, e-ru-ma = *water-cow*.

138. In tango *cow* of Jili (not Singpho) the root is nga (ta-nga).

140. The statement that in Chinese the root alone signifies *buffaloe* and the inference from it are incorrect. In Chinese, as in Dravirian, the name for the buffaloe is *water-cow* (or *ox*), and it is only by contraction that gu &c. alone is applied to it.

141. The Deer god is identical with the Bhotian god *mare*.

145. The sibilant name of Tiberkhad &c. is Tibeto-UltraIndian.

155. 7th line from foot, for moon, read silver.

157. del. 5th line from foot.





## II. THE MON-ANAM FORMATION.

### SEC. I. GENERAL REMARKS ON THE HISTORY AND ON THE RELATIONS OF THE MON-ANAM FORMATION.

The general phonetic and ideologic characters of this formation have been mentioned in chap. III. It was there shewn to be more closely connected with the Chinese than with any other existing system of language. The prepositional tongues of Ultraindia are so strongly allied in their phonetic and ideologic character to Chinese and they contrast so strongly with the Dravido-Australian formation, that, in this portion of their basis, they are, doubtless, branches of the ancient South Chinese family of languages, which on the west must have marched with the Tibetan, the native seat of the Chinese proper being to the north east of Tibet. Their more archaic history thus becomes involved in that of the Chinese formation, which is a remnant of the most primitive form of language now extant. The history of the Chinese and Ultraindian tonic languages must be studied in their vocabularies chiefly, for, so long as the tonic phonology remains, new formations must be glossarial in great measure. As the linguistic history of the province probably reaches back beyond the very origin of the oldest harmonic formations in the world, the changes brought about from era to era, by the movements of its population, in the number, character and distribution of the monosyllabic vocabularies, must have been exceedingly great. Those that have survived the long predominance of one anciently civilised race, that of Northern China, differ considerably. All the known languages, however varied in their vocabularies, have ultimately been impressed by one or other of three ideologic forms,—the Chinese, the Mon-Anam and the Tibeto-Burman.

The last, so far as it departs from the Chinese, is mainly Scythic or Turanian in form.

The Mon-Anam in those grammatical traits that depart from Chinese, resembles the adjacent Malayo-Polynesian formation. Its chief peculiarity consists in a reversal of the Chinese collocation of the substantive and its qualitative, possessive, and demonstrative. One of the principal characteristics of the Himalaic languages, Tibeto-Ultraindian as well as Mon-Anam—the use of preposed and prefixed definitives—rather conforms to Chinese collocation than deviates from it, the Chinese demonstrative pronouns being preposed. Where the divergence in collocation first took place cannot now be known, the North Chinese formation having in its southern progress, assimilated all the known languages of the region save those at the extreme south, which have only slightly and recently come under its influence. \* As the Lau agrees with the more southern languages in this respect, the collocation probably belongs to a formation that embraced or affected all the languages of the South Chinese tribes at a remote period. † There are even reasons for believing that this is the proper or archaic Chinese collocation.

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\* That is, for about two thousand years in the case of the languages bordering on China—the Anam and the Lau.

† The proper Chinese language appears to have been that of the Tsin, a tribe of the Hoang-ho that became predominant. The southern Chinese, those of the Yang-tse-kiang and Kwang-tung river, were early

The position of the qualitative in Tibetan does not follow the normal collocation of that family, which is Scythic. As Chinese also agrees with Scythic in placing the possessive and qualitative first, and the irregularity in Tibetan only applies to the qualitative, it must be referred to an archaic connexion with the Mon-Anam family. The definitive prefixes are another primary link. The Mon-Anam pronouns and numerals are partly Tibetan and partly Dravirian,—chiefly the latter,—but most of the substantial roots are similar to the Tibetan,—the forms being often more archaic than the current Tibeto-Burman, and the applications such as to indicate a very early divergence of the two families. The large agreement in phonology, roots and prefixes—an agreement that becomes the stronger as we recover the older form of both families—and the assimilation in the position of the qualitative, prove that the two were long conterminous in their ancient trans-Himalayan province. As the Tibetan pronouns and numerals are the same as the Chinese; it is not probable that the Mon-Anam carried a radically different system into India, and the remnants of the native one furnish positive evidence that it was Chino-Himalaic. The close archaic connection between the two families, their common differences from Chinese and the mode in which the southern dialects are distributed, render a common name very convenient for both and as the Himalayan range with its undefined eastern continuation has been chiefly instrumental in preserving the race, while its passes have enabled successive hordes to descend into India and UltraIndia and thence to Asonesia, the alliance may be termed the Himalaic, distinguishing the Tibetan as the Western and the Mon-Anam as the Eastern branch.\*

The main distinction between the two families consists in the more Scythic structure and phonology of Tibetan. The difference in structure is archaic. There are no reasons for supposing that Mon-Anam had the Scythic collocation when it first left Tibet and entered India. The use of prefixed definitives and the irregular position of the qualitative in Tibetan show these to be native Himalaic traits. If Dravirian exercised any influence on the structure of Mon-Anam it would tend to render it more, and not less, Scythic. The position of the definitives and of the qualitative and possessive are directly opposed to the Dravirian collocation. There is no evidence

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assimilated in language and civilisation to the northern nation, although retaining, especially in Kwang-tung, a distinct physical form. The ancient dialects of the south must, from the mountainous character of a large portion of the country, have been numerous in the more barbarous ages of its history. The glossarial peculiarities of the present languages of Kwang-tung and Fok-kien may throw some light on the native ones. But our hope of ascertaining the ancient formation of the Yang-tse-kiang must rest on the dialects of those mountain tribes that still preserve their independence and have little intercourse with the civilised Chinese. As the more westerly of these tribes are much nearer to Tibet than to the primary northern seat of the Chinese proper, it is probable that their native dialects will be found to be related to the East Himalaic, that is to the Mon-Anam divested of its Dravirian and later Tibeto-Burman ingredients.

\* I have used the term in previous sections, but the paragraph explanatory of it was omitted. [See p. 148].

that the Oceanic (Malagaso-Polynesian) formation affected the structure of Mon-Anam after it passed from India into Ultraindia. We must conclude therefore that the Mon-Anam structure was that of one branch of the Himalaic stem; and as it is partly found in the other, it may be regarded as the normal and distinctive form of Himalaic as opposed both to Chinese and Scythic, but especially to the latter. The peculiar connection with Chinese indicated by common pronouns, particles, numerals and substantial roots, is further attested by the phonology and by those structural characters in which Mon-Anam is Chinese and not Scytho-Tibetan, e. g. the position of the object after the assertive, the preposing of the directives, and the use of segregatives. In the oldest form of Tibetan of which clear traces remain, it was much more harmonic or Scythic in phonology than most of its dialects now are, and the change is ascribable to the influence of Chinese. The influence of Chinese on the Mon-Anam dialects, while in their cis-Himalayan position, has also been great. Has their non-harmonic phonology and monosyllabic form been superinduced on an archaic one similar to the ancient Tibetan, through this influence, like the later form of Burman and Thotian? In other words, was the Himalaic vocabulary that was first carried south dissyllabic and possessed of a tendency to vocalic harmony, in the same sense in which the earlier and less Scythic Tibetan was dissyllabic and harmonic? The answer must be in the affirmative. The older form of the vocable was identical in the two branches of Himalaic. It consisted of a root and a preposed or prefixed, but not conereted, definitive. The prefixes are still largely preserved in Mon-Anam vocabularies, and especially in those that have been least affected by Chinese and have received the fewest Chinese words—the Kambojan and Mon. The deeper Chinese influence to which Lau and Anam have been subjected, and which has occasioned a large infusion of Chinese vocables, shows itself also in their more monosyllabic character. Both indeed may now be considered as monosyllabic; but that they once agreed in form with their sister dialects of the Himalaic family, appears from many of the vocables retaining a remnant of the prefix in the initial consonant.

The primary connection shown by the pronouns and by other common roots, as well as by the crude structure and phonology, may be indicated by the name of Chino-Himalaic. The Himalaic family early separated from the Chinese, but has probably been in all eras more or less influenced by it. Its early separation appears from the difference in collocation and in many roots and applications of common roots, while its independent development is attested by the tendency to a dissyllabic form. The difference between the two branches of Himalaic can hardly admit of a similar explanation. The glossarial basis is nearly identical; and there does not appear to have been room between Chinese and archaic Tibetan for the development of a collocation different from both. The distinctive postpositional traits of Tibetan are identical with those of the adjacent Scythic, and they must be derivative in one or the other. The Scythic pronouns and numerals and many of its other roots show this formation to have been archaically distinct from the Chino-Himalaic, and it is more probable that it had also a distinctive structure than that it partially borrowed the structure of Tibetan. The normal Himalaic structure is found in East Himalaic, and the normal Scythic in all the widely dispersed Scythic groups. We must conclude therefore that in the irre-

gular Tibetan the distinctive Scythoid structural traits are of Scythic origin, while the others are Himalaic like the pronouns, numerals and prefixes. Whether the Tibetan dialects had acquired a Scythic form before the Mon-Anam moved south is doubtful. All the dialects of Tibet may have had the same purely Himalaic form at the period of the first migration. But it is also possible that the Tibetan branch may have then occupied a more northern and western position than it did at a later period, and that it may thus have come under Scythic influence while the parent Mon-Anam branch, secluded in the valley of the Tsang-po, retained the native form. Possibly also the migration of the latter may have been the result of the pressure of the Scythic hordes on the tribes of northern Tibet; for it is not probable that the knowledge and civilisation of southern Tibet were, at that remote period, so advanced as to incite the tribes of the Tsang-po voluntarily to engage in expeditions for the extension of their dominion over the Dravirians of the sub-Himalayan vallies. The total disappearance of all remnants of the Mon-Anam branch in Tibet points to conquest and expulsion. But no positive inferences can yet be drawn as to the presence or absence of Scythoid dialects of Himalaic at the era of the Mon-Anam migration.

In some respects the Mon-Anam phonologies are more Tibetan than Chinese. Some of them, as the Kambojan, are more consonantal than any of the existing Chinese phonologies; and in their strong tendency to combine the liquids *r* and *l* with other consonants, they depart wholly from the modern Chinese and resemble the less emasculated languages of the Tibeto-Burman alliance. The excessive emasculation of the northern Chinese, however caused, has proved contagious. In the progress of its western influence it has more or less affected the southern Chinese dialects, and, in a still greater degree, some of the Tibeto-Ultraindian dialects, as the Karen and Burman, while the Tibetan dialects have not escaped its influence. From the character of the more archaic Tibeto-Burman, Mon-Anam and South Chinese phonologies, no doubt can be entertained that the Northern Chinese was also at one time highly consonantal. It now presents the ancient S. E. Asian phonology in an exceedingly attenuated and softened form, bearing the same relation to the stronger phonologies that Polynesian does to the less abraded languages of the Malayo-Polynesian alliance.

At present we need only deal with the Mon-Anam formation in its Ultraindian form, and its more archaic Chinese history may be neglected. The period when it first began to make progress in Ultraindia must be very remote. The difference between the Draviro-Australian and the Mon-Anam formation is so great that it may be safely connected with the equally striking difference of race; and ascribed to a long continued and total ethnic separation during its earlier history. The Simang and Andamani are the purest remnants of a pre-Himalaic race in Ultraindia, and it is probable that similar Draviro-Australian tribes, with perhaps others of a later type, occupied it, so far as it was inhabited, before the Mon-Anam race entered the region. That the linguistic formation was akin to the Dravirian may be inferred from the extension of the archaic Indian race and formation to the eastern islands. The Dravirian remnants found in the Mon-Anam tongues themselves, and the presence of a Dravirian element in the cis-alpine Tibetan languages also, make it certain that the first Himalaic hordes, on descending the

passes, entered a province occupied by Dravirians. The present position of the Mon-Anam nations might lead us to suppose that they moved into Ultraindia and thence into India. But the relation of the Mon-Anam to the Vindyan dialects shows that the Dravirian traits of the former were wholly or chiefly acquired in Bengal, and renders it probable that they did not reach the south by the basin of the Irawadi but by that of the Tsang-po—Brahmaputra like the later Tibeto-Burman tribes. How far Ultraindia was then inhabited and what languages were there spoken, cannot therefore be ascertained from the character of the Mon-Anam languages. The absence of any trace in them of a different formation shows that no powerful race distinct from the North Dravirian of the Ganges, was found in Ultraindia by the Mon-Anam tribes when they left Bengal and moved eastward. The line of meeting between the Malagaso-Polynesian and the Dravirian provinces was probably then in some part of Ultraindia: but this portion of our enquiry must stand over till we examine the non-Malayan ingredients of the Peninsular languages.

In the first period of the intrusion of Himalaic tribes into the Dravirian province, it is probable that dialects of a Draviro-Mon character were formed; but, with the constant advance of the Mon-Anam population from the Himalayan vallies, the languages, like the tribes, would become more and more Himalaic. The line of contact between the pure Mon-Anam and the pure Dravirian formation appears to have gradually advanced southward, till it reached the barrier of the Vindyas. The subsequent occupation of the sub-Himalayan vallies and of a portion of the plain by the proper Tibetan tribes, and the expansion of the Tibeto-Burman family both on the Indian or Dravirian and the Ultraindian or Mon-Anam sides, has necessarily obliterated the latest line of contact between the older formations. From the great Ultraindian antiquity of the Mon-Anam formation and the changes which its tribes and dialects must have undergone since they first became intermixed with the Dravirian, only slight traces of the history of the transition can now be found, and the movements and revolutions that took place before the present distribution of population was brought about must remain obscure. A comparatively advanced maritime civilisation grew up on the sea board in a remote age, and a few tribes, favourably situated, obtained power and supremacy and became considerable nations. Their dialects appear to have spread with the population. In their progress they must have absorbed numerous tribes, and when a few predominant nations were established, each doubtless endeavoured to extend itself by conquest into the territories of others. As civilisation reached the inland tribes both of Ultraindia and Southern China, and as these tribes were from time to time impelled by the pressure of others behind them—a pressure sometimes transmitted from Northern China or the Scythic region beyond—the maritime nations would be exposed to fresh irruptions from the interior. The modern Ultraindian tribes have been almost uninterruptedly engaged in mutual hostilities, and the civilised sea board peoples have repeatedly been subjugated by the tribes behind them. The Mons or Peguans have been pent up and conquered by the Burmans. The Burman tribes have been enveloped, and in many places expelled or subdued, by the Lau. The latter have also occupied a large portion of the Mon-Kambojan province, and completely obliterated the

ancient tribes throughout the basin of the Me-nam and the upper basin of the Me-kong, while in the lower basin the same people pressing on from the north and west, and the Anamese from the east and south, are gradually occupying the Kambojan province and absorbing the race itself. The ancient tribes were doubtless equally aggressive, and annexation and absorption must always have been in progress. Even if we exclude the Lau altogether, we are not warranted in assuming that the Anamese, Kambojans and Mon were the only ancient nations of this formation, or that their distribution had not suffered great changes before it became such as we now find it. It is more reasonable to conclude that several other tribes of the formation occupied Ultraiidia prior to the advance of the Tibeto-Burmans, and that they were absorbed or extinguished in the progress of the later races and in mutual wars.

The superiour Ultraiidian antiquity of the Mon-Anam formation to the Burma-Tibetan is proved, 1st, by the relative distribution of the families, the former occupying the position most consistent with an intrusion of the latter from Tibet into the sub-Himalayas and their gradual but partial extension to the southward and westward; 2d, by the preservation of a partially Mon-Anam language amidst Dravido-Burman dialects in the extreme N. E. of Ultraiidia (Kasia) and the influence of the Mon-Anam formation on the intrusive languages and especially on the older (e. g. Yuana, Karen, Naga, Jili, Abor &c.); 3rd, by the extent to which North East Dravirian has influenced the Mon-Anam tongues although they are now completely separated from the Kols not only by the Tibeto-Burmans but by the Arians of Bengal; 4th, by the presence of archaic Mon-Anam elements in remote Asonesian languages. The latter circumstance, in strictness, proves only that the Mon-Anam race until recently was in occupation of the seaboard of Ultraiidia, but as they have been so immemorably, the fact, even by itself, affords a strong presumption that the Tibeto-Burmans are a comparatively modern and intrusive people. If the Mon-Anam tribes had originated in the maritime settlements of a powerful foreign nation, the fact would have lost its weight, but they are an extension of the native population of the adjacent region, and the matter for surprise is, not that a Chino-Himalaic population preceded a later Tibetan, but that ethnology can reveal a period so remote that the South Chinese tribes had not yet spread to the eastern shore of the China sea and to the Bay of Bengal.

In considering the influence of the Mon-Anam race and formation it is to be constantly born in mind that not only the distribution, but even the character, of its tribes and their languages, must have varied from era to era. The Anamese may not be the tribe that has always and singly occupied the eastern sea board. Other tribes and languages of the same family may have preceded the Mon on the Irawadi; and the native location of the Kambojans may have been remote from that in which they are now secluded. The Anam has some peculiar western affinities which indicate an archaic western position for the tribe. The Mon has evidently been very considerably modified by the influence of the conterminous and interspersed dialects of the Burman branch of the intrusive formation.

The foreign influences to which the Mon-Anam languages have been subjected will be more conveniently noticed in a subsequent paragraph.

It is sufficient to state here that in recent ages the most important have been Tibeto-Burman, Chinese and Indian (Bengali, later Dravirian and Pali).

The external influence of the Mon-Anam formation has been great. To the southward it early extended into Indonesia and thence over Mēronesia and through Papuanesia to Polynesia. To the north and east it made less progress, owing probably to the greater density and civilisation of the older Draviro-Australian population in India than in Ultra-india and Oceania. But it transformed the Gangetic race and influenced its languages. It is probable that a pure Mon-Anam nation at one period existed in the Gangetic valley and gradually modified the adjacent Dravirian hill tribes. Although their languages remained Dravirian they departed considerably from the purer type preserved in the south. The pronouns become irregular and the general glossary received an accession of Mon-Anam vocables. The northern Gangetic languages are now Tibeto-Burman, and remnants of Mon-Anam elements can now be identified with difficulty. Still there are undoubted traces of ancient Mon-Anam and Draviro-Anam ingredients. The Mon-Anam elements in the Burma-Tibetan dialects belong to two different eras of the latter family.

In a formation that has so long occupied the Ultraindian province, certain nations and languages must from time to time have acquired an ascendancy and become more or less diffusive. The latest of such influential nations appears to have been the Mon or an older people whom the Mons represent. Vocables, or forms of vocables, found in Mon but not in Lau are common in Kasia, the Vindyan dialects, and those of the Mekong. They occur in smaller proportion in Anam and the pre-Malayan vocabularies of the Malay Peninsula (Sīmang, Binua). A portion of these were no doubt common to several dialects that arose on the first entrance of the Mon-Anam race into Ultraindia, and several tribes may have been instrumental in their dissemination. But a certain proportion were probably originally characteristic of the vocabulary of the Mons, and were diffused by that nation after it acquired maritime importance. This appears to have happened very early; and during the long period in which Mon vocables have been disseminated, the vocabularies of the lower Irrawadi must themselves have undergone great changes. The Mon has latterly received words from the conterminous or intermixed Khyeng, Karen and Burman. During a much longer period—throughout what may be termed the middle ages of the formation—it must have adopted vocables from the older Burma-Tibetan languages of Ultraindia,—the primary Abor-Yuna. This subject will receive some elucidation from the forms of Mon-Anam words in the various Oceanic vocabularies, when compared with the modern Mon and with the Vindyan, Kambojan &c. At present it is sufficient to say that the Mon, in its purer or pre-Burman form, appears to have been the most influential variety of the Mon-Anam languages, and to have spread its numerals and many of its vocables into the Malay Peninsula. Its affinities with the Me-kong dialects are so strong that it is evident the nation had spread across Ultraindia. It probably communicated its civilisation to the tribes of the Me-kong, and furnished a considerable element to its dominant population. In its eastern progress it is impossible that the middle river basin of the Me-nam could have been left a desert. It is probable that the population of that basin was originally allied to that of the Me-kong and that the Mon

influence was predominant in it also.

Although the Lau tribes must have immemorially bordered both on the cognate Mon-Anam and on the Tibeto-Burman, they do not appear to have taken a prominent or influential part in the ethnic history of Ultraindia until a comparatively late period, and after they had come under the influence of the Chinese civilisation.

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The history of the Mon-Anam languages cannot be fully elucidated unless they are viewed in connection with the Oceanic. But to trace their influence on the latter belongs to an after portion of this enquiry. One of the most interesting results of a comparison of the vocabularies of the two provinces is, that vocables which are now very rare in the Mon-Anam glossaries, or are even confined to a single language, have still a wide currency in the insular tongues. In some cases this may be explained by the Ultraindian tribe which preserves the word, having had a special intercourse with some of the islands. But in general such an explanation cannot be satisfactory, because the most enterprising and influential nations of Ultraindia, such as the Mon, must have been those that enjoyed the most extensive intercourse not only with the islanders but with their continental neighbours. The true explanation must, in most cases, be, that such widely diffused words were at one period extensively prevalent in Ultraindia also, and that, after their extension to the islands, they were superseded in most of the languages of Ultraindia by the vocables dispersed by influential Tibeto-Burman tribes. For example, a word once common to all or most of the Mon-Anam languages, may now be found in Lau alone or in Anam alone, because in Mon and the vocabularies that have been most influenced by Mon, it was early dislodged by a Yuma or Naga term. If we now find this word in Malayo-Polynesian languages we are not justified in concluding that it was directly derived from Lau or Anam. It sometimes happens that such rare Ultraindian terms have been displaced in Indonesia also and are now only preserved in Polynesian or other remote vocabularies. Considerable as is the proportion of Himalaic vocables in the Asonesian languages, the number of the most common words in the former that have not found their way into the latter, is so great as of itself to exclude the supposition that the dialects of the Himalaic tribes have been the sole parents of those of the allied insular tribes, that is of the Malayo-Polynesian. It also tends to diminish the force of the presumption that the peculiar non-Chinese collocation and other ideologic traits common to the two formations, were borrowed by the Malayo-Polynesian from the Mon-Anam.

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Before proceeding to glossarial details I shall state briefly, and, to a certain extent, in recapitulation of the preceding remarks, what appear to be the general results of a comparative analysis of the languages of this formation in all their characters.

Fundamentally, that is in phonology and ideology, the Mon-Anam languages closely connect themselves with only one other existing formation, the adjacent Chinese. The resemblance however is one in general character rather than in details, although there are many remarkable traits common to the two formations. Where the Mon-Anam ideologies depart from the Chinese, they do not conform to the adjacent western and northern fer-



mations, which we may describe generally as the Scytho-Dravirian, including in this alliance the Tibetan so far as it is Scythic. In their non-Chinese collocation, the Mon-Anam tongues accord with the nearest languages to the southward, the Malayo-Polynesian, although in other respects the latter belong radically to a wholly distinct system.

Whatever the special development and history of the Mon-Anam tribes and languages may have been, they are fundamentally connected with each other, as the whole group is with the Chinese. This marks the most archaic phasis of the formation and beyond it we can as yet see nothing. But on this side we can make out a succession of changes, affecting the glossary chiefly, but so deep, that, save in form, they have almost completely alienated the Mon-Anam group from the Chinese. This glossarial transmutation or divergence was probably connected with great modifications of race, for the Mon-Anam tribes vary much, and some are more akin to the Nipalo-Burman, Tatar and Indonesian races than to the Chinese, (Chap. I.). The pronouns are mainly Dravirian, and Dravirian terms are sparingly scattered throughout the vocabularies. This affinity is evidently a record of the era of the first intrusion of the original Chino-Ultraindian race into the Dravirian province. A much larger proportion of the common vocables are Tibeto-Burman. Chinese words have been received in comparatively late ages, both directly from the Chinese and through the Tibetans and Tibeto-Ultraindians. In some cases the Chinese terms are clearly archaic. Indian and Indonesian words have also been adopted. After putting aside the acquisitions from all these sources, a very considerable proportion of peculiar terms remain. Some of these are connected in root with Tibetan and others have Scythic and Upper Asian affinities. To understand the full bearing of this fact, it must be remembered that the Tibeto-Burman vocabularies have a large similar range of Upper Asian affinities, and that the Chinese is also sometimes embraced in these affinities, besides having special ones of its own of a like kind.

Some of the later or Tatar affinities are either exclusively or most closely with Turkish. This enables us to connect the history of the Ultraindian tribes with that of the Mid-Asian nomadic hordes. Turkish words and Turkish forms of Scythic are also found in the Tibeto-Ultraindian vocabularies, and they may have been partially communicated by the Turks to their southern Tibetan neighbours, during the period this branch of the Tatars occupied northern Tibet and a portion of Northern China, or for about two thousand years prior to the commencement of the third century of the Christian era, when they were driven westward by a horde of Tungusian origin. The Turkish words in the Mon-Anam and even in the older southern vocabularies of Tibeto-Burman probably belong to an earlier era of Turkish history, than even the beginning of the period in question. The affinities of Turkish to remote western as well as eastern languages render it probable that the southern movement of the race, soon after 2000 B. C., was not the earliest, as it was not the latest, for the Turks of the Altai preceded the Mongols on the southern borders of the great desert. In general the Mid-Asian affinities of the East Himalaic vocabularies, must be much more archaic than the Turkish period of Tibetan ethnology. They belong to an era when the Mon-Anam languages were contemporaneous with those of tribes allied to the Koreans, the Tungusians, the Samoiedes, the Yenisei-

ans and the Ugrians as well as the Turks and Mongols. They attest a currency of words between Mid-Asia and the districts of Western China, at a period prior to the advance of the Eastern Chinese into the latter, and to the exclusive prevalence of the Tatar tribes in the former.

To educe any definite historical conclusion from this class of affinities appears to be impossible. Whatever group of southern languages is examined we find it to contain Scythic ingredients. The Oceanic, Dravirian, Ultra-Indian, Tibetan, Indo-European, Caucasian, Semitic and African families agree in this, although their Scythic affinities vary exceedingly in kind and amount, and must be the result of archaic ethnic movements embracing many thousands of years. The only general conclusion we can come to is, that the Scythic formation, in its successive phases from Chinese to proto-Iranoid, has been the most influential of all others, because it is that of nomadic races who, from an extremely remote era, have circulated over that wide and uninviting portion of the Old World, of which South Europe, North Africa, Asia Minor, Arabia, Irania, India, Ultra-India, and China form the attractive margin.

The various ingredients of the Mon-Anam vocabularies to which we have adverted, do not exhaust them. There is a considerable residue of words which appear to be peculiar, like a much larger class in the Chinese vocabularies. Many of them will doubtless be referred to various foreign, or to wider, formations and alliances—and particularly to the Scythic or Mid and North Asiatic—as our glossarial knowledge advances.

## SEC. 2. PRONOUNS AND GENERIC PARTICLES.

The pronouns are hybrid. The most prevalent roots are Dravirian in the irregular dialectic forms of the N. E. or Kol branch. The mode in which these remarkable forms have arisen out of the normal Draviro-Australian system was considered in Sec. 11. of Chap. 5 (Journ. Ind. Arch. ix, 14 *et seq.*, 35 &c.) \*; and the opinion was expressed that its great disintegration and decay in the N. E. branch of Dravirian had the same origin as the older Himalaic roots that are found in the substantive glossary—viz. the entrance into the lower Gangetic valley of the first Himalaic tribes, or those of the Mon-Anam stock. Where and when the blending of the two races and languages first commenced, cannot now be ascertained. But as the character of Mon Anam betokens an origin to the eastward of the Tibetan, and as the archaic Dravirian ingredient in the population of Ultra-India and Asonesia and in the languages of the latter, indicates that the pre-Himalaic dialects of Ultra-India were also Dravirian, it is probable that the Mon-Anam tribes found themselves among Dravirians on their first descent from the mountains. As there are no reasons for supposing that at so early a period in the ethnic history of S. E. Asia, the mountaineers brought with them a higher civilisation than they found among the Dravirian tribes of the

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\* The labial 2d pronoun was explained as a Dravirian plural form that had displaced the singular. A striking confirmation of this origin has now been supplied by a new N. E. Dravirian vocabulary collected by Mr. H. Nevill for Mr. Hodgson, and published by the latter in the Journal of the Beng. As. Soc. for 1356, (p. 46). This dialect, the Savara, has *a-man thm*, *a-man ye*. The Gadaba has a slender form *pen* in the plural, but it retains the normal root in the singular, no.

same era, it is probable that many distinct tribes and dialects were formed, as has always happened in similar circumstances. The forms of the prevalent pronouns and numerals must have been derived from one of these dialects which became predominant and diffusive during the latest phase of Mon-Anam, or that which preceded its disruption by the Tibeto-Burman movements. The diffusion of these forms has been from west to east, and the dialect was therefore a western one.

From the character of the existing N. E. Dravirian dialects we have inferred that the system of pronouns and numerals received its peculiar form in the Gangetic basin. It may be concluded, therefore, that the dialect in question was not one of the archaic northern ones formed on the first descent of the Mon-Anam family, but was that of a powerful and influential tribe that arose in lower Bengal or its eastern skirts, in the later ages of the predominance of this family. The nucleus of the dialect must have been formed at a much earlier period, when the intrusive race was not sufficiently numerous to expel the aborigines or to preserve its own language unmodified.

The Dravirian traits of the Mon-Anam tongues are of the kind that are acquired when a tribe has much and close intercourse with another intermixed with it and superior to it in civilisation. If the older tribes of Bengal had been greatly inferior to the Mon-Anam, they would have been helotised or gradually driven into the Vindyas, and no relation could have arisen between the two races admitting of the adoption by the colonists of the pronouns of the natives. There must have been a certain balance of ethnic influence, and its permanent results on the two languages are most accordant with the hypothesis that physical strength and courage were on the side of the intruders, and civilisation on that of the Dravirian Bengalis. The indigenous civilisation of India, as distinguished from that introduced and perfected by the Arians, appears to be extremely ancient. In its earlier eras it is probable that it was at least equally advanced on the Ganges as on the Godavery, Kistna or Cauvery. Without a superiority of this kind and a close friendly intercourse, an East Himalaic tribe could not have come, in the lapse of time, to use the Dravirian pronouns in lieu of its native ones. The process by which such a change is brought about is a familiar one. The foreign pronouns are at first used in addition to the native. Perhaps they are for a time considered more respectful. It becomes the fashion to use them in preference, and no literature existing to preserve the old ones, they become obsolete and are irrecoverably lost. The adoption of the Dravirian numerals does not in itself imply so great a superiority and so intimate and pervading an intercourse as the adoption of the pronouns. But it is a fact on the same side.

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The N. E. Dravirian pronouns and their Mon-Anam distribution have already been considered, and the reader is referred to the tables in sec. 11 of chap. v (1st pron. p. 37; 2d pron. p. 43). In this place I will consider those of each of the Mon-Anam dialects separately, in order to show to what extent Tibeto-Ultra-Indian roots have been received or retained by each, and how the two systems are now combined. In other places I have remarked on the instability of pronouns, arising from various causes,—such as an original or acquired diversity of roots, combinations and applications,—limitations and expansions of meaning,—the

transfer of the same definitive from one person to another—the replacement of true pronominal roots by substantives. In all the more civilised S. E. Asian languages the pronominal system has been more plastic to social influences than most other groups of vocables. The despotism of power fashions words as well as manners. Distinctions of rank and position are most directly reflected by pronouns—the symbols of the person. The same tyranny that forbids a man to walk up to a superior and obliges him to crawl to his feet, taboos the use of the familiar pronoun as too suggestive of a common humanity.

When pronominal usage is, in so considerable a degree, artificial, the introduction of foreign roots and the formation of hybrid systems, are more easily effected than among races in which the ancient pronouns have themselves a kind of sacredness and cannot be changed according to the caprices or panderies of power. The habit of using several words for each of the persons, and especially for the 1st and 2d, facilitates the adoption of new ones, and both old and new may remain current, or the latter may in time displace the former.

The intermixture of the Dravirian and Tibetan names varies in the different Mon-Anam dialects. Mon is Dravirian in all the three persons. Kambojan is Dravirian in the 1st and 2d, and Tibetan in the 3d. The northern tongues—the Lau and the Kasia—are Tibetan in the 1st and 3d, and Dravirian in the 2d, while Lau has also an Arian pronoun in the 2d. The only dialect of which we possess grammatical notices of any fullness—the Siamese—affords a good illustration of the extent to which pronouns may become restricted in their use and replaced by substantive words. *1st Pron.*, *ku* is used authoritatively or contemptuously; *rao (pl.)* is respectful and also familiar; *kha slave* is a humiliate; other terms are also in use. *2d Pron.*, *than (pl.)* and *chau ka* are respectful; *chau* and *tua* have no peculiar force; *eng* is applied to inferiors; and *mang* or *mung* is only used contemptuously. *3d Pron.*, *ta*, *than*, are respectful; *khau* is applied to persons and things; *min* is applied to things and contemptuously to persons; *chau lon* is applied to persons only, and is a term of disrespect. In the most northern dialects the Dravirian labial 2d pron. appears to be still the principal one, while in Siamese it has descended to the lowest place. The Arian *tua* appears to be the principal one both in Siam and Laos. The Khamti and Ahom are faithful to the Dravirian root.

Anam also shows a great intermixture. For the 1st person a Tibetan root in three forms, a Chinese root, and an archaic Dravirian root in two forms, are in use. The 2d pron. has several distinct forms of the Vindyan vocable. The numerous roots for the 3d person have also been obtained from different sources.

In the Indonesian dialects of the Malay Peninsula the Vindyan pronouns are current. Simang has them in the 1st and 2d persons. Some of the Binua dialects have the Vindyan 1st pron. and the Malagaso-Polynesian 2d. Throughout the Asonesian groups the Dravirian labial 2d pro. is found in the *pass.* and *pl.*, and it also enters into the composite plurals of the 1st person (*mu, mo, mi*). \*

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\* In Mr. Hodgson's latest series the Chentsu 2d pers. retains the Drav. *yi-ke*, while the ordinary pron. is now the Arian *tunyi, tu*.

## I. KASIA.

1ST PRON. *nga sing.*, *ngi pl.* Tibeto-Burman in the com. form. The plural in *i* is the Scytho-Tibetan pl. occurring in Horpa and several of the Ultraindo-Gangetic systems, Singpho, Naga, Nipal. (ch. v. Sec. 11 J. I. A. Vol. ix p. 403.)

2D PRON. *mə*, *pha sing.* *phi pl.*, N. E. Dravirian. The first form is the Kol *mə*. Anam has a similar form *mei*, (*mai*, *ban*). The second, *pha*, corresponds with the Mon *bai*, Namsang *poss. mə*, Drav. *a-man*, *i-mma*, *u-mma*, &c.

3D PRON. *u masc.*, *ka fem.*, *ki pl.* U is probably a contraction of the labial 3d pron. common to Dravirian, Chinese, Gyarung (*wa*), Takpa, and several Ultraindo-Gangetic dialects. The immediate affinities are East Gangetic or Brahnaputran, Garo *u*, *ua*, (pl. *wo-nok*), Dhimal, Toung-thu *wa* (= *ua*), Dhim *pl. ub-al*, Abor *bu*, Newar *wo*, Milch. *phai*, Dophlama, Angami *pa*, Khari *pau*, Tengsa, Nogaung *pa*, Tablung *tau-pa*. The Bolo *bi* has the slender Takpa form *pe*, *be*, as in Mijhu *we*, *ve*, Muthun *mih*, *Mozone me*, and Karen *a-we*. The guttural is related to the Chino-Tibetan *khu*, *kho*. But it more closely resembles the Tibeto-Ultraindian definitive *ka*, *ta*, and is also a def. and def. pref. in Kasia *ka*, *k-*. *A*; *tha*, *thi*, *thə*, is current as a 3d pron. in Chino-Tibetan and Ultraindo-Gangetic, *ka* may be referable to it. Singpho has *khi* = Chin. *khi*, Kambojan *ke*, Mnyak, Burman, Gurung &c. *thi*, &c. &c. (see Sec. 3; J. I. A. vol. ix p. 395).

## 2 MON.

1ST. *oe*, *oei*; *awai* in Dr. Morton's orthography, in the vocabulary compiled by him for Mr. Hodgson. The full form is preserved in the derivative Binua *oin*, *ain*, *yun*. The Simang *ein*, *eing*, *en*, Kambojan and Chong *eng*, are closer to the Kol *eing*, *aing*, *ing*, which are similar to the south Dravirian forms *ne*, *e-n*, *e-ng* &c. The Mon *o* form appears to be the common *e* form with a vocalic augment, and not a variation of the Male *o-ng*, Toda *o-ne*, *wo-n* &c. Dr. Morton gives *pwā* as the pl. of Mon. It probably corresponds with *pueh* of the 2d, *we* being often *I + thou* or *you*.

2D. *pi*, *pueh*; *bai*, Dr. Morton. The form *pi* resembles the Kol *api* *ami*, &c. The form *bai* is similar to the Anam *mai*, *mei*. In the plural Dr. Morton gives *beən tau*.

3D. *deh*, *deak*; *nya*, Dr. Morton. This is the Dravirian liquid root in the Kol form *ini*, *u-nea obl.* &c., Bengali *ini*, Khyeng, Kumi *ni*, Karen *anoi*, Siam *this ni*.

## 3. KAMBOJAN GROUP.

1ST. any *Ka-mer* (the com. pron. is *kanyom slave*), *ae Ka*, *eng Chong*. Dravirian in the Binua and Mon forms.

2D. *wo-nu Ka-mer*, *bo Chong*. Simang *bo*, *mo*; Ahom *mo*. From the Simang and Asonesian forms it is probable that the Mon had a similar one, better preserved in *pue* than in *pi*.

3D. *ke*, *pi-ke*, *Ka-mer*. The guttural is Chino-Tibetan. See Kasia. The *e* variety is Namsang *a-te*, Lepcha *he*, Murmi *the*, Gyarung *thi*, Milch. *te*, Anam *te*.

Besides these a Kambojan dialect given by Mr. Crawford has *chah*, *I*, probably from the Pali *ata*; and *eng-tao thou* apparently two roots for *I*, and probably incorrect. For *Ka*, he gives *sai thou*.

## 4. ANAM.

1st. (a) toi; tan, ta; pl. chung toi, chung ta, kwa; kwa bau *I and thou*. Lau gr. kau, Tablung tau, Kumi, Kami kai, Muthun tai (in pl.); Toung-thu khwa.

(b) min, mo; pl. mo toi, vo toi, mo kwa.

(c) ngo; Chinese.

The forms mo, vo, min, correspond with the Mon pwa *pl.* They appear to be archaic Dravirian plurals that obtained a singular use. Comp. *me* Telugu memu, Karn. am, Toda wom, Khond amu, Goud ma, mo, Male om, Kol em, me &c.

2d. (a) mai, mei; bau. Mon bai, pueh.

(b) ga.

(c) ong.

(d) nguoi, a 3d pron.

*pl.* bai, chung bai, pho ong, nguoi ai.

(a) is Dravirian; (c) Tibetan, ong being a variation of no (Manyak, Angami &c.). Ga is the Tibeto-Himalayan guttural form (comp. gai Sunwar, see ch. v, Sec. 11. J. I. A. vol. ix p. 45). As in Tibetan it is used as a 3d pron. also.

3d. nguoi, no, ai, ga, ga kia, han, kia, ngai, nghi, te, thu, va; *himself* minh; *this* no, nai. Nai, ai, are Dravirian ai, ni &c., and va; te, thu, may also be Drav. The guttural is Tibetan. Larger vocabularies of the other languages are necessary to determine the etymology of all these terms. no is Abor, but it appears to be the 2d. pr. of Mijhu, Abor, Dophla, D. Chutia, Angami and Manyak. Minh resembles the slender Muthun mih &c. (see Kasia).

## 5. LAU FAM.

1st. kau Ahom, Khamti, ku Siam, Laos kha *slave* Siam; *Pl.* rau, hau. Tablung tau, Muthun Joboka ku, Khari a-kau (*pl.*). Guttural forms of the Tibetan nga &c. occur in the Yuma gr.; and some of the Naga and west sub-Himalayan dialects—the ordinary range of the Lau Tibetan affinities. The *pl.* rau is the *pl.* particle found in Naga, Abor, Takpa, Horpa, Gyarung, Garo.

ong Laos.

2d. mo Ahom, mau Khamti, mang, mung Siam. Draviro-Mon.

tua Siam, toa Laos. This is Arian (Pali).

3d. man Siam, Laos, Khamti; Tibetan, Dophla ma, Dhimal, Toung-thu, Garo, Gyarung wa.

khon Siam [Tibetan], heu Ahom, *pl.* kh-reu (Tibetan *pl.*); heu Lepcha.

Draviro-Mon pronouns are found in the Malayan dialects of the Malay Peninsula, blended with Malayo-Polynesian or Malagasy ones. Simang and Binua have several forms of the 1st pron. probably derived from Mon, as the vocabularies have other Mon derivatives. The antiquity of the engraftments is attested by the forms being less contracted and closer to N. Dravirian than the Mon.

The 2d pron. is found in Simang in the Ahom and Chong forms, mo, to. It has also been received into the Malayo-Polynesian system.

The form of the Tibeto-Ultradian 1st pronoun that occurs in Lau—

kau Khamti, Ahom, Khari (in *a-kau* *we*), ku Laos, Shan, Muthun and Joboka,—in Anam and Tablung tau (from kau),—in Yuma dialects, kai Khumi, Kami, tai Muthun, toi Anam, kyî Khyeng, *ki-mu* Kyau, khwa Toung-thu—is not the original and most prevalent one in the Tibeto-Ultraïndian languages, nga, ngai, ngi, nyi &c., (Chinese ngo, ngei &c.), but an ancient guttural modification. A similar form appears to have originated in Eastern Tibet (ka Thochu), and been thence carried southward, ka Dhimal, Nogaung (*poss.*), Kami (*pl.*), Lepcha (*pl.* and *poss. sing.*). In these dialects ka appears to be a distinct and archaic form. Dhimal has the Gyarung 2d and 3d pron. na, wa; the connected Bodo, Garo and Deoria Chutia have the Gyarung ang form of the 1st, while Abor has ngo. The Dhimal ka is therefore exceptional. Nogaung has the slender form nyi in the nom., but ka in the poss., and as ngi is a plural form, ka is probably the ancient nom. Khari has also the com. *pl.* ni in the *sing.*, but kau in the *pl.*, the latter being probably the ancient form of the *sing.*, corresponding with the adjacent Tablung tau. In like manner it is preserved in the *pl.* of Magar kan (*sing.* nga), and in the *pl.* and *oblq. sing.* of Lepcha ka (*nom. sing.* go, as in Sunwar and Milch., from the Abor ngo). In the more sequestered and archaic group of the Irawadi tongues, it keeps its place in the *sing.* and *pl.* as in Dhimal,—Kami kai *sing.*, ka-*chi* *pl.* The Anam toi, ta, Muthun tai, have the Kami form. The Anam kwa is also archaic Southern Irawadi, khwa Toung-thu. Another variation of the guttural is found in the Mijhu ke which Joboka preserves in its plural ke-*m* (ku *sing.*) Tablung has he-*lam* *sing.*, he-*lan* *pl.*, ti-*sei* *poss.*, te-*wai* *obj.*; Mulung tau *sing.*, ti-*che-cha* *pl.*, ti-*sei* *poss.*, to-*we* *obj.*—tau thus varying to to, ti, te, he (from ke or se probably).

The Anam and Tablung tau and the Naga kau, ku are referable to the Lau kau. Whatever may be the history of the original derivation of ka, it is probable that kau is a proper Lau form, and kai, tai, an Anam form—these diphthongs, being affected by their respective phonologies. The other Thochu vocables and forms found in the Mon-Anam dialects render it probable that ka, kau, khwa, &c. was imported by the earliest Himalaic migration, and is older in the south than the nga, ang forms. The Anam varieties appear to be derivatives from the archaic South Irawadi group. The Lau kau, ku, is probably to be also referred to the guttural of the first Tibetan mi ration.

### Recapitulation.

#### 1st Pron.

The Drav. labial *pl.* is preserved as a *sing.* pron. in Anam. The N. E. Drav. pron. is found in Mon; Ka-mer, Ka, Chong; Simang, Binua.

The oldest Tibeto-Ultraïndian guttural form of the Chino-Tibetan pron. nga &c. is found in the Lau fam. and Anam, in forms similar to the older Irawadi ones.

The later Tibetan form is found in Kasia.

A Gyarung-Ultraïndian form is found in Laos.

The Chinese form is found in Anam (recent).

#### 2d Pron.

The N. E. Dravirian labial is found in Ahom; Kasia, Mon; Ka-mer, Chong; Samang and Malayo-Polynesian.

The Pali pron. is current in Siam and Laos (recent).

*3d Pron.*

The East Tibetan labial (Chinese) is used in Kasia, Anam, Ka-mer, Siamese. The common u, o, form is Abor, Garo, Naga, Newar and archaic Tibetan, (also Yeniseian bu, Kamschatkan wuh, Scythic, Caucasian, Dravirian).

The Chino-Tibetan guttural is used in Kasia, Ka-mer, Anam and Siamese.

The Dravirian liquid root is current in Mon, Anam, the Lau fam., Khyeng and Malayo-Polynesian.

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 PREFIXIAL DEFINITIVES.

These have been already considered with reference to Tibetan (I. Sec. 1 and 2). The similar prefixes found in the Mon-Anam vocabularies render it certain that they belonged to the archaic Himalaic formation. They were first current as separate definitives. In later stages they were attached to the substantial roots. In those dialects in which a secondary monosyllabic tendency was acquired, under Chinese influence, they were either discarded or lost their vowel.

The prefixial letters of Tibetan and the prefixed definitives so abundantly preserved in the vocabularies of the earlier branch of Tibeto-Ultraindian—Sifan and southern—proves that this formation had the full range of prefixed and preposed definitives, as the allied proto-Scythic had, and as Yeniseian, Caucasian, African and Africo-Oceanic languages still have. This habit must have originated prior to the postpositional stage of Scythic and Tibetan, and its presence in the Himalaic languages tends to connect them with Chinese. Where the influence of Chinese is strong there are necessarily no prefixes, the definitives and segregatives having remained separate from the roots, or having fallen into disuse. In several of the Tibeto-Ultraindian languages they have thus become obsolete. Burman, for example, has in a considerable degree reverted to a Chinese character from this cause. The Mon-Anam vocabularies present a similar diversity in this respect. Whether they were originally most closely allied to the Chinese formation or to the Tibeto-Ultraindian, or whether their origin goes back to a period before Tibeto-Chinese and Tibeto-Ultraindian had become formations distinct from each other, they appear, in their present condition, to be decaying prefixial languages like the Tibeto-Ultraindian. The Mon-Kambojan branch in particular may be considered as representing the latter formation in its pre-Scythic or prepositional stage. This branch is more closely connected with the Tibeto-Ultraindian languages than the Anam and Lau, which partake more of the Chinese character.

The definitives constitute one of the chief peculiarities of the Himalaic formation at that stage in which it spread into Asonesia, for they are not only found as concentered prefixes in nearly every Asonesian vocabulary, but are used separately as definitives in some of the most archaic. *Te, tu, ka, ga; lu, ra, na; ma, ba, pa, va; sa, si, hu, ya; a, u, i* &c. are all found in the insular languages. *La, ra, da*, and *ma* &c. have, in most cases, been directly derived from the Malagasy, but *te, tu, hu* cannot have been borrowed as a separate definitive from that formation, and it is evidently referable to Ultraindia. It is still current here as a separate



definitive in Kasia, in which it is used as extensively as the corresponding definitive in Polynesia.

Kasia has *ka* both as a prefixed and as a separate definitive\*. *Ka*, *kha*, sometimes *ta* is also current in Mon. *Ka* and *ti* are found in Kambojan, the latter form sometimes passing into the sibilant *si*, *chi*. † In Kambojan *ke*, *pi-ke* is also the 3d pronoun. In Lau some vocables retain the guttural pref. generally concreted with the root, *h*, *hh*. The Mon initial aspirate probably corresponds to the sibilant prefix of Kambojan. In Kasia it occurs both in the pure consonantal or initial form *s*, corresponding with the Mon *h*, and in the vocalised and amplified nasal forms *si*, *shi*, *shin*. The aspirate *hi*, *hin* is also found. The sibilant and aspirate form of the guttural and dental characterised a group of dialects in the western extremity of the Asam band and the adjacent Manipuri basin (Mikir, Kasia, A-rung, Singpho &c.). This form of the particle in all its varieties is common in the Malayo-Polynesian languages as a definitive, a demonstrative and a prefix. The labial definitive and prefix is also a current Mon-Kambojan particle. Mon has *pa-*, Kambojan *pa-*, *po-*, *p-*, and Kasia *u* (masculine) identified with *pa* &c. through the Garo *u* (generic), Naga *pa*, *po*, *pu*, Miri *bu*, Dhimal Garo *wa*, Newar *wo*, Sgau Karen *awai* &c. (3d pron., def. pref.) Lau has a few concreted remnants of the labial prefix. ‡

### SEC. 3. NUMERALS.

The first Himalaic tribes of the Ganges appear to have brought with them the Chino-Tibetan system in one of its older forms. The same intermixture of names took place in it as in the pronominal system. The first four numerals of the native population were adopted. They were doubtless current for some time along with the Himalaic names, but the latter were ultimately disused, although retained in higher numbers. Five appears to have remained Himalaic. Above it the lower numbers of both systems were repeated. In the Kambojan quinary 6, 7, 8 and 9 the Vindyan lower numbers are still current. Mon, Anam and Ka have also a Vindyan name in 7. The Anam 10 is the Vindyan 1. All the sister dialects have forms of the Himalaic unit in 10. But Kasia and several other Gangetic and Ultraindian tongues have a Dravirian unit in 10, or for 10 or 1 in higher numbers. Lau, Kambojan and Ka have it for 1000. The form is not the Vindyan 1 of Anam, but the South Dravirian 1 in its archaic labial form and with the liquid postfix, the same form being also found in the Vindyan and Mon-Anam 4 (i. e. 1 for 3, 1). With these exceptions the Mon-Anam numbers above 4 are Himalaic. When the mixed system was carried from the Gangetic basin eastward, the Vindyan names alone appear to have been used for 1, 2, 3 and 4 in all the

\* Bhotian *g-*, *h-*, Horpa *h-*, Gyarung *ka-*, *ta-* &c., Thochu *hi-*, *cha-*, *g-*, *k-*. Abor, Manipuric gr., Mishmi, Mikir, Dhimal, Bodo, Naga, Jili, Yuma gr. including Karen, &c.

† The sibilant is Bhotian *s-*, *z-*, *h-*, Horpa *s-*, Angami Naga, Manipuri *ch*, Mikir, Kasia, Singpho.

‡ *T* is Bhotian *d-*, Gyarung *ta-*, *te-*, *da-* &c., Abor, Naga, Thochu *da-*, Manipuri, Tengsa gr. Jili &c.

† The labial is Bhotian (pref. and postf.), Manyak, Abor, Mishmi, Mikir, Bodo, Garo, Naga, Manipuri, Yuma, Burman (in a few words pref.) &c.

dialects; for no others are now found in Mon, the Kambojan dialects or Anam. The Himalaic 5 must also have been exclusively used, as it is found in all. The dialectic variation in the Himalaic names both for 5 and for higher numbers is much greater than in the lower or purely Vindyan series. This is partly explained by the roots having undergone changes similar to those that have taken place in the purer Himalaic tongues. Some of the forms have been acquired from them. But it is clear also that the numbers above 5 were compound when the mixed system was carried into Ultraindia, and that this was one cause of the variations.

The Dravirian forms found in the Mon-Anam tongues are not all referable to a single Vindyan dialect. They are chiefly Kol, but some are similar to Yerukala, Savara and even to South Dravirian forms. The miscellaneous Dravirian words in the Mon-Anam vocabularies have a similar range of affinities, the result of a prolonged intercourse, at an ancient period, with the Dravirian tribes of the Vindyas or of the Gangetic valley.

The history of the Himalaic names in Mon-Anam dialects has already been considered. No example of the Himalaic 2 is preserved in them. The various forms of the unit are all secondary. The system to which they belonged must have been similar to the predominant Sifan-Gangetic one in its older phase. The principal form was tam, dam, dap &c, passing into cham, sam; ram, lam, nam,—the final changing to ng, n, l, r in the later forms. Comp. tam 8 Anam, Ka, dam 100 Ka, dap 10 Kambojan, ram 5 Kambojan, nam 5 Anam, ram 100 Anam, lom 100 Mon, roa, roi 100 Kambojan, Lau, rai 10 Chong, nung, ling 1 Lau, cham san 8 Mon, san 5 Mon, ha 5 Lau, chang 5 Ka.

The Mon-Anam group has some distinctive names. *Five* is the unit (for 3) and not the dual as in nearly all the other Chino-Himalaic languages. *Eight* retains the older —m form in Anam, Ka and Mon, while the southern Tibeto-Burman dialects, with the exception of Chepang and Tengsa, have later forms. *Nine* has the unit in the current secondary form, and not in the concentered primary form of all the other Chino-Himalaic systems. *Six* has a form more allied to the common Chino-Himalaic 6 than to the Mon-Anam unit of other higher numbers. While the latter has the a of Chinese and Gyarung, 6 has the u or o of the common 6. The final —ng of Chong and Mon may be older than the common —k. But it is not clear that in 6 the unit had acquired a form distinct from that in 5, 8, 10, 100 &c., and allied to the Chinese, when the system first entered the basin of the Ganges; or that the older —m, —p form had changed to that in —ng or —k, before the Mon-Anam mother tongue left the Chino-Tibetan circle.

Nearly all the Himalaic forms are similar to those of dialects still located in or near eastern Bengal, in what may be termed the Barak province, as the basin of the Surma and Barak must have been the middle ground of the northern Yuma and Manipuric dialects on the one side and the ancient Bodo, Garo, Mikir, Kasia &c. on the other, and the valley, with its rivers, the great ethnic highway between the eastern highlands and Lower Bengal with its band of Vindyan tribes on the opposite margin. Similar forms with strong indications of Mon-Anam and Dravirian influence, are retained by distant dialects whose general character proves them to have originally come from the Barak province, e. g. Mijhu and Singpho. The latest western seat of the Mon-Anam and Kambojan tribes appears, from the evidence of the numerals, to have been in this

province. This will appear clearly on examining the forms of each numeral.

The Mon-Anam system not only in its Dravirian but in its Himalaic element, has retained a distinctive character in all the dialects, notwithstanding the presence in Ultraindia of numerous and advancing tribes speaking tongues of the purer Himalaic form. The civilised Mon, Kambojan and Anam peoples must have been closely connected in the Gangetic valley and in their subsequent Ultraindian movement; and they must have retained a high degree of independence in later ages, when the Tibeto-Burman tribes spread up the northern side of the Ganges and over the greater portion of western Ultraindia. But sections of these peoples, or sister tribes less civilised or less powerful, may have been assimilated by the prevailing Tibetan hordes. Although the mixed system is essentially the same throughout,\* there are some dialectic differences; and these are sufficient to show that the Mon tribe had moved eastward into the lower basin of the Me-kong before the influence of Anam was felt there. The Chong, Ka and Kambojan 1 and 2 are Mon, and not Anam, in form. Kambojan and Ka have an amplified form of 4 similar to the Nicobari, which must have been derived from a form once prevalent in Mon, or some portion of the ancient Mon territory. Ka has the Mon 5. Chong and Ka have the Mon 6. The later influence of Anam is seen in the Kambojan and Chong 5, the Ka 7, and the Kambojan 1 of 11 *ma-t*. The early or Barak connection between Mon and Anam themselves, in special forms both of the Vindyan and Himalaic names, is seen in the Anam 10 which has a Mon form of 1, in the Anam 4 and 6, and in the Anam and Ka 9.

I proceed to examine each numeral separately.

*One* has nearly the same form with some of the Kols on one side of Pegu, as with the Besisi of Malacca and the Kambojans on the other. The original Dravirian full forms were *mo-ia* and *mo-ia-d*. The later contracted forms, *mo-i*, *m-ia-d*, appear to have been carried to the Irawadi. Mon still preserves the former in its *mu-e* and in the amplified *mua-i*, *muo-i*. The derivation of the eastern names from the Irawadi dialect is shown by the proper Dravirian form of Mon being preserved in the Kambojan group *mo-e*, and the dialectic amplified form in the Anam 10 *muo-i*. The Anam *mo-t* appears to be a contraction of an Irawadi form that took the dental Dravirian postfix. A similar form is preserved in the Kambojan 11, *ma-t*. These forms do not appear to be referable to the Kol *m-ia-d* even in its lost full form *mo-ia-d*, but to a Gangetic form which had the dental in place of the vocalic poss. postf., as in the South Dravirian *vo-dda* 1, *pa-da*, *pa-tta*, *ba-d* &c. 10. The Binua *mu-i* is referable to the Mon *mu-e*. The Kasia *we-i* may be a distinct Gangetic form. Some of the older Tibetan tongues of the Irawadi—Yuma-Manipuri &c.—have received the labial unit from the ancient Dravirian system of

\* It is so much so that it is quite clear it is referable to one locality where it was common to all the Mon-Anam tribes. Few of the dialects have any archaic peculiarities. For 7 Mon has a Drav. form of 2 not found in the others, while Chong has an ancient Himalaic 2 in a Barak form. The forms of the Himalaic unit in 5, 7, 8, 9 and 10 are all referable to one type, although several of the variations are older than eastern dispersion of the family.

the basin,—mu Khyeng, po Angami Naga, *h*-mo Mijhu, *a*-ma Manipuri, *ai*-ma Singpho &c. &c. (See p. 137).

*Two.* The original form of *two*, *ba.r*, is, in like manner, found in both directions, Kol, Kasia—without the initial; Binua; Ka, Chong of Kamboja. The Mon *ba*, Sîmang *be*, Mon-Anam *ha.i* (= *ba.i*), are evidently contractions.

That the Mon had the full form is rendered probable by the Bînuar *mar*, Kasia *ar*. The Anam *ha.i* is an aspirate variation of *ba.i* preserved in 7 (2 for 5, 2). Mon preserves a totally distinct form in its *ka*-*bo.k* 7, and a similar form is found in the Kiranti *bha.g-ya*. The original of *bok*, *bhag* (= *bo-h*, *bha-g*) is a Vindyan form preserved in Savara *ba-gu* 2, *bo-ho-di* 20, and in the Yerukala *vo-gu* 7 (2 for 5, 2). The forms show that the labial is the root in 2 as in 1, and that in *ba.r* the root takes the common liquid def. or postfix. The true analysis of the primary form is therefore *ba-ru*, *ba-ri* &c. (See p. 150). How far the similar Scytho-African labio-liquid and liquid forms are involved in this correction cannot be discussed here.

*Three* is found in its full form in Mon, *pu-i*, *pa-i*, Kambojan *ba-i* and Sîmang *wu-i-p*, and in a contracted or modified form in the other languages. All the eastern forms are referable to Mon, which has the original Dravirian form *pu-i* (S. Drav. *mu*) inverted in Kol to *op*. The Brahui *muo-i-t* has a form similar to the Mon-Anam *muo-i* (1, 10).\* The original Vindyan forms must have been *bar—mu-ia* or *ba—mu-ia*, *bar—pu-ia*, *bar-up-ia* &c. The Sîmang *wu-i-p* 3, *pu-i-t* 6, resemble those Kol, Brahui and South Dravirian forms that have two postfixes. The Binua *am-p-e-t*, *am-pi-i*, appears to be a Mon form modified to accord with *am-pat* 4 (Malay).

*Four* has the same form from Gawil in the heart of India (Gond) to Kamboja and Tonking (Chong, Anam). The Savara *von* of *von-ji* is still closer to the Ultraindian forms (pon Mon, Chong, bon Anam) than the Kol and Gond forms previously known. Comp. pon Mon, Chong, bon Anam. In sec. 11, I considered this numeral, *opunia*, *pania* &c. as “probably a variation of the labio-liquid 2”, that is, as 2 dual. This explanation appeared preferable to the analysis *op-un* &c, 3, 1, i. e. the Vindyan 3 *op*, followed by the S. Drav. 1. The Savara form removes the objection to that analysis, by showing that the S. Dravirian liquid 1 *on*, *un*, is not a distinct root from the labial, but merely a contraction of it. The Tuluva *on-ji* 1, is evidently the same word as the Savara *von-ji* 4. Yerukala has *von-du* 1, the full form of the Karnataka *on-du*. The newly published Nilgiri vocabularies have also *von-du* Badaga, Irula. The Vindyan 4 is therefore 1, for 3, 1. The Kol prefixal *u* remains unaccounted for. The true analysis is probably *op-pun*, i. e. *op* 3 (*op-ia*), and *pun* 1. The Kambojan *puan*, *buan*, *boan*, is an amplified form similar to the Mon, Anam and Brahui *muo-i* 1. It was probably an ancient Mon form, as it is preserved in Nicobar, fuan. The Mijhu *ham-bum* must have been brought from the Barak province.

*Five.* The Vindyan *mo-na*, *mu-na* is not found in any of the Ultraindian vocabularies. I may notice here that the Savara *mo-lla-zi* confirms the analysis given of *mu-na* and of an archaic Toda form (chap. v.,

\* The Yerukala *mume* = *mu-me* confirms the correctness of my analysis of the S. Dravirian forms, as it shows the root *mu* with a different postfix.

p. 166, 172) as 3, 2.

The Mon and Kasia san, sun is found in Ka chang, and it is also preserved in an aspirate form in the Lau system ha. This is the Chino-Tibetan 3 without 2,—the prevalent Chinese and Tibeto-Ultraindian 5 being 2 without the 3. When the Mon-Anam or the parent East Himalaic system was detached from the Chinese the full term—3, 2—must have been current in the latter. The Mon, Kasia, Ka and Lau a preserves the current Chinese and Gyarung form sam, as in Mijhu, Dophla, Bodo, Garo, Naga, Changlo, and Lepcha. Sunwar, like some of the Chinese dialects and Mon-Anam, nasalises the m,—sang, and the other Nipal dialects nasalise the o form. The Kambojan and Chong ram, Anam nam, is a variation of tam, dam, sam, zam &c. 3, found in the Namsang *van*-ram, Tablung lem and associated with the Sifan-Gangetic liquid unit. This form was probably therefore carried by Anam into the Me-kong basin. (See p. 131).

Examples of the full compound 3, 2 are preserved in that western Tibeto-Burman group with which the Mon-Anam dialects are so intimately connected—the Barak. Bong-ju rai-nga, Kuki ra-nga, ru-nga. Mijhu, a wanderer from the same group, has lei; and the general currency of the full term in the early Abor-Yuma dialects is further attested by Takpa and Abor (p. 132).

It is noticeable that while the Dravirian labial 5 is not found in Mon-Anam, it occurs in Deoria Chutia *du-gu*-mu.a (Drav. mu-na, mo-i &c.), Chepang and Milchanang ma, a form corresponding with the Manipuri and Singpo ma of 1, while the proper o, u, form is preserved in the 1 of Mijhu, Angami and Khyeng (mo, po, mu). The ancient Barak dialects probably had it in 5 before it was superseded by the Tibetan compound, Deoria Chutia belonging to the Barak circle.

Above 5 there is less connection among the Mon-Anam terms. Kambojan alone adheres to quinary names in 6, 7, 8 and 9, but using the Himalaic 5.

*Six* has the Chino-Tibetan name in all the other dialects. *Seven* is quinary in all. *Eight* and *Nine* appear to be denary throughout.

In the Chinese system 6 appears to have been primarily quinary, and Tibetan has the Chinese vocable. In Chinese and a few Himalaic dialects 7 is 6, 1, but in the other Himalaic dialects it is quinary. The Chino-Himalaic 8 and 9 are denary. In the Dravirian system 6 and 7 are quinary, 8 and 10 denary.\*

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\* In ch. v. sec. 11 I remarked that there appeared to have also been a quinary 8. The additional forms given in the recently published Nilgiri and Vindyan vocabularies in Mr. Hodgson's series (J. A. S. B. 1856 p. 31), satisfy me that my earlier opinion (in the *App.*) that all the names are denary, was correct. The peculiar form of the labial root in the Gond 8 and its identity with some forms for 3 seemed to show that the term was 5, 3,—the first element also resembling the root in 5. The Telugu form of the labial *mi-di* I considered as representing 1 in 9 *t-om-mi-di*. The Chentsu tota 9 (*to-ta*) shows that to is a distinct archaic root for 1, analogous to the Brahui sibilant. The Telugu 9 is therefore to-*mmi-di*, 1, 10, *mi-di* being a form of the labial 1 used here for 10. In the Telugu 8 *e-ni-mi-di* (2 10) it is also 10. The Gond anamur 8 must be *a-na*—mu-r, and a dialectic variation of the common e 2, (a being normally 8). The Tuluva *e-na-me* has the same form of the postfix and a

It would appear that the Mon-Anam family possessed a more complete quinary system than the adjacent continental formations. It alone has a quinary 8 in Kambojan; and from that dialect having a quinary 9, it is probable that the others had also a full quinary series at one time.

A similar quinary system is found in Asonesia, where it appears to be intermediate between the binary Australian and the denary Malagasy; but the investigation of its history belongs to a later chapter.

*Six* is *p-ram* moe in Ka-mer, 5, 1. In the other Mon-Anam dialects it is the Tibeto-Burman Chinese name.

I formerly considered it as Tibeto-Burman in the Vindyan group also, the forms being nearly identical with Tibeto-Burman ones. But in the Table of Chino-Himalaic and Dravirian Numerals appended to Sec. 7 of Div. I., I have analysed it as a Dravirian compound in the Vindyan group, for the reasons given at p. 147, although with much hesitation. If Himalaic, the Kol form *tu-ru*, *tu-r* and the Savara *d-ru* of *ku-d-ru* do not specially resemble any of the Mon-Anam forms. They have the euphonic form found in the Yuma-Manipuric group *chu-ru* Shindu, *shu-ru* Angami, *tho-rok* Mikir, *o-ruk* Kyau, *so-uk* Khyeng. The Mon-Anam have a close glossarial connection with the older Yuma-Manipuric. The Gond *sa-rong* resembles a Mon-Anam form. Chong *ka-dong*, Mon *ka-rong*. The full form in *-ng* may be older than the common Chino-Himalaic form in *-k*. A similar form of the unit occurs in the Lau and Mru 1. The Savara *ku* of *ku-d-ru* resembles the primary guttural unit of the oldest Himalaic series, similar forms being preserved on the opposite side of the Gangetic valley—*khu* Newar, *khung* Changlo &c.

The Anam *sau* is probably the older form of the Mon and Ka rao. It

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similar one occurs in the Uraon *e-no* of *e-no-tan*. The Karnataka *e-n-tu*, *ye-n-tu*, 8, has a remnant of it. The Gadaba *ye-ni—mi-di* 8, *to-mmi-di* 9, are Telugu. In the new Nilgiri vocabularies, Toda has *e-d* 2, *e-tt* 8, Kota *ye* 2, *ye-tte* 8, Badaga *ye-ra-du* 2, *ye-ttu* 8. These forms and the common Dravirian forms for 7 and 8 in which archaic forms of 2 are probably preserved, lead us to the inference that in 2 *e*, *ye*, *i*, is a primary root, or a remnant of it, and *r*, *n*, a second archaic element or postfix. I gave *era-du* as a typical form in the table in sec. 11 (J. Ind. Arch. vol. p. 163), but the correct analysis now appears to be *e-ra-du* or *e-ra-du*, in which *du* is a secondary poss. post fix like the dental in the Telugu *vo-ha-ti* 1, Tamil *ba-ku-du* 10, Kol *m-ra-d* 1, Brahui *mu-si-t* 3 &c. Names like *ra-nu*, *ra-du*, euphonicly *ra-ndu*, have thrown off the primary initial element, and preserve only the two postfixal ones; but it is probable that when the secondary postfix was assumed, the first had become concentered with the root. The antiquity of the liquid element in 2 is attested by the cognate Kol and Australian systems, and also by those of the other Aso-African formations. As I remarked in sec. 11, the initial element *e*, *i*, is probably a contraction, Dravirian having a propensity to throw off the consonant of the first syllable or root. From the analogy of *a*, *o*, 1 from *pa*, *vo*, *pa-n*, *vo-n* &c., and the presence of the initial labial in the 2 of Kol, Dravirian and other archaic Aso-African systems, it is probable that the original full form of the Dravirian *e-ra*, *i-ra* &c. 2, was *pe-ra*, *bi-ra* &c., and that this form of 2 was identical with the labial 1 as in Kol and Australian. Kambojan, and Simang have a similar slender 2, *pi-r*, *be*.

has the form of the unit found in the Kasia 4 (3; 1) sau; in 3' of a southern Barak or North Yuma dialect, thao Shendu; and in 10 of Mon tsau and of Kumi hau. This form is referable to a broad archaic type of the unit, of which Burman preserves an example in its 6' rauk, yauk, youk (from sauk) and Mru another in loung 1. The final ng of the Mon *ka-rung* and Chong *ka-dong* must be a remnant of the full form of sau, rau, saung, raung, rounng &c.; comp. the Yuma thong (Khyeng), thung (Toung-thu), Burman sung, thong. A typical Chino-Himalaic kaum, saum, of which an example is still extant in the Mru gaum (for 10 in 30), connects all the current forms, including the Chinese and Kumi kau 9, as both the a and the u, o forms (e. g. sam, sum, lam, lum) are deducible from it.

*Seven* is quinary, as in Sifan-Gangetic and Dravirian, the word for 5 being omitted save in Ka-mer, which has p-ram pil (pil 2). The words in the other dialects are also Dravirian. Mon has the guttural form of 2, *ka-bo-k*, as in Yerukala *vo-gu* 7. Its Gangetic currency is also indicated by the Kiranti *bha-g-ya* which has the Savara form of 2 *ba-gu*. Anam has bai (=hai 2), Ka pah.

The Chong *ka-nul* is peculiar. It agrees with the Mijhu nun and Bhotian dun, and if it belong to the unit series it must be considered as a Chino-Bhotian form (1 for 6, 1). The Lau nung 1 is of the same type. The Chong form must follow the history of the Mijhu, which I referred in I, Sec. 7, to the Bhotian. But I now think that the general position of the Mijhu system is against this identification. Mijhu is a remarkably archaic and sequestered dialect of Tibeto-Burman, preserving strong marks of former contact with the Mon-Anam family. Its 1 *k-mo* and 4 *ham-bum*, bum, (Kumi pum in 20), are Mon-Anam. Its 10 has the primary guttural form kyep. Its 5 has the unit (3) as in Mon-Anam—not the dual as the Chino-Tibetan—and its form is Yuma and Mon-Anam (Kasia 3). Its 6 as well as its 3 has the form of 3 used in the Mon-Anam 8. Its general character is Yuma-Gangetic of the Barak circle; and its Mon-Anam affinities were probably acquired when it was associated with that family in the Barak province. It probably preceded Singpho in the movement to the eastward, as Singpho is somewhat less archaic and less Mon-Anam. Along with the ancient forms of the unit series it has an archaic 2 in 8, ngun, and a slender form in 2, ning. As many forms of 2 have n for fig, and as 7 is 2 (for 5, 2) in all the archaic and associated Sifan-Ultraindian dialects, nun 7 is probably a variation of ngun 2. That a similar form was the normal one in the Barak circle appears from the 7 of Kasia *ka-nian*, Garo *si-ning*, 5 of Nancowry *tha-nin*, Lepcha ngon, and 3 of Mijhu *ka-ning*, Garo *gi-ning*, Sak nein, (Chinese liang). The Lepcha ngon and Mijhu ngun, nun appear to be older than the more common ngok, ngak and closer to the primary type whence both the Chinese modern ngo and liang were evolved (See p. 121). Ngong was not discriminated as an earlier form than ngok in Sec. 7 of Div. 1., but its high antiquity is supported by the order of the unit series, in which forms in -m and -ng take precedence of those in -k, -t, & c.

The Vindyan forms are all Dravirian. The Kol are South Dravirian; but Yerukala, as we have seen, has a N. E. form *vo-gu*, as well as a Dravirian *ye-gu* (Gond *ye-mu*, Southern *e-lu*, *e-du* &c.), and Yerukala has a distinct vocable *gul-ji*, the same that is used as the Kol, Savara and Gond

10 (gul, gel, gal &c.). The full form may have been 6, 1 (Chino-Himalaic) or 3, 10.

*Eight.* Ka-mer alone retains a pure Vindyan form *p-ram ba-i* (5, 3). The others may be either quinary or denary, as they have a Chino-Himalaic unit. The quinary form of the Ka-mer name, and the agreement between the Mon and Anam 8 and the Chino-Himalaic 3, formerly led me to regard all the Mon-Anam names as quinary. But it results from sec. i. that all the Himalaic names are denary, and that Mon and Anam preserve the older secondary form of the unit while nearly all the Tibeto-Burman dialects have later forms. This form of the unit was common to Mon-Anam and the principal Tibetan group of the south. Mon *ka-cham*, Anam, Ka, tam. Chong has the Tibetan *ka-ti*, the unit representing 10 (Gyarung *ka-ti* 1, Lepcha *ka-ti* 10), as in Manyak *si of si-bi* and Sak thin. The Mon and Anam form is the same as the 3 of Mikir *ka-tham*, Naga *a-sam*, Siamese and Chinese *sam*, Gyarung *ka-sam*, Mijhu *ka-cham*, in 6 *ka-tham*.

Older forms are preserved in Mikir *kep* and Tengsa *sep*, while the associated forms *sat*, *tha* &c. are referable to the broad type of Mon-Anam (See p. 136).

The Kol names are Dravirian. Yerukala, besides the S. Drav. *ye-gu* (*e-tu*, *e-ntu* &c. Southern), has *va-ttu* the S. Drav. 10. Savara may have been derived from a Mon-Anam dialect (Anam tam), but it is more probably Drav.

*Nine.* Ka-mer has the ancient quinary name *p-ram buan*. The others are denary, but distinguished from the common Chino-Himalaic denary 9 by having secondary forms of 10. The Chong sar, Anam and Ka chin, chim, with the absence of similar forms in the Gangeto-Burman dialects, show that these are native modifications of *sam*, *san* (comp. *san* in the Mon 8 and 5). The Mon *chit*, *sei*, with the Ka *chit* of 10, are later forms similar to the East Gangetic 8, but no doubt referable to the native *chim*, through *ching*, *chik*.

*Ten.* Anam has the Dravirian unit *muo-i*. The other dialects have Chino-Himalaic forms of the unit as in the common Chino-Himalaic 10. Kasia has *shi pon*, a combination of the Chinese and Vindyan 1. Kiranti also has *thi bong*. Muthun, Joboka, Mulung and Tablung have *ban*, *pan*, Manipuri *mi-pal*, Kumi *pum* in 20 (*a-pum-re*). The Mon 10 *choh*, *tsau*, is Yuma. The Ka *chit* is identical with the form of 10 preserved in the Mon 9 and is also Yuma-Gangetic. An analogous form is found in the Chong 20 *bar-se* (2, 20). The Chong *rai* is a vocalic form of the Sifan-Gangetic and Mon-Anam *sam*, *ram* &c., similar to the Yuma-Gangetic or Barak *lai*, *rai*, preserved in the Play Karen 1, Kasia 3 and 9, Bongju and Mijhu 5 (3, 2) &c. It was probably acquired like *nul* 7 from a Tibetan dialect of the Barak group. The liquid 10 is common in East Gangetic dialects in 10, 20, 100. (See pp. 131 to 134). The Ka-mer *dap* is an archaic form similar to the Anam *tam* of 8.

In 100 similar forms of the unit are preserved. Mon *k-lom*, *ka-lun*, Anam *t-ram*, Ka *dam*, Kambojan *ron*, *roe*, Lau *roi*. The full Mon form occurs with the labial pref. in Taying *ma-lum*.

1000 is the Dravirian unit in the form found in 4 of the Mon-Anam dialects, 10 of Kasia. Kambojan *ma-pun*, *pan*, Chong *ban*, Lau *pan*. Mon and Anam have a different name *ngau* Au., *ngiu* Mon. A Lau



dialect has *ling*, corresponding with *leng* 1. It is probable that *ngan*, *ngin*, are also forms of the liquid 1.

The *Lau* system is chiefly Chinese in the later southern forms. The names have doubtless the same recent origin as the other modern Chinese words of the vocabulary. The position of *Lau* in the north of the *Irawadi* basin, in *Laos*, and in *Yun-nan* when the Chinese advanced into the last, accounts for the predominance of the modern South Chinese ingredients in its numerals. *One*, *two*, and *five* appear to be remnants of the native system; 1 *nung*, *ling* is *Sifan-Gangetic* and *Mon-Anam*; 5 *ha* (= *sa*) is *Mon-Anam*; 2, *song*, *sang*, is peculiar.\* For 100 a native and *Mon-Anam* unit is current in *Siamese* and *Lau*, *roi*, *hoi*, while the northern dialects, *Khanti* and *Ahom*, have the Chinese name *pak*. The late Chinese system of the *Lau* has made hardly any progress beyond the tribes of that family.

#### SEC. 4. MISCELLANEOUS WORDS.

We have seen that the distinctive non-*Vindhyan* pronouns, definitives and numerals of East Himalaic, so far as they can be determined, were peculiar forms of the current *Tibeto-Burman*, that similar forms are prevalent in several of the Southern dialects which are now *Tibetan* in grammar and to a large extent in glossary, and that remnants of these forms are also preserved in some of the *Sifan* dialects—*Horpa*, *Thochu*, *Manyak*. The 1st pronoun had a guttural form as in *Thochu*; the 2d was probably not the current *Sifan-Gangetic* form of the nasal, *ngang* &c. but a broad form as in *Manyak*, *Abor* and *Angami* (*no*), *Anam* preserving *ong* and *Ka-mer nu*; the definitives were the labial and guttural, the latter passing into the dental and sibilant, and all being used as prefixes. In the numeral system the unit in 1 and in higher numbers had, in general, a liquid form as in *Horpa*; and the same form is largely current in the *Yuma* dialects. There is no remnant of the dual in any *Mon-Anam* dialect, but it may be presumed that it was the archaic broad form (*ugak*, *ngok*, *ngong*, *nga* &c.) preserved in several of the cognate *Tibetan* vocabularies, and not the later *Bhoto-Gyarung* form, *ngis*, *ni* &c., now the most prevalent in the South. The general glossary has the same character and affinities.

The roots are, in general, the same as the *West Himalaic*, but many of the forms are broader and more archaic than those chiefly current in the dialects of that branch. The applications also are often different.

There is a very small proportion of *Dravirian* vocables.

The agreement with the Southern *Tibeto-Burman* dialects is much greater than with the existing *Tibetan*. A large number of the forms of *Mon-Anam* and many of its non-*Tibetan* applications of the common roots, are found in *Ultraindian* and *Gangetic* dialects of the *Tibetan* type. The close connection with these vocabularies anterior to the large influx of *Sifan* and *Bhotian* forms now found in them, indicates a common old *Himalaic* basis. All the Southern *Tibetoid* dialects have a certain proportion of this non-*Tibetan* ingredient. In some it is very large and in others very small. The *Dravirian* element is also present in most of them. The remnants of the ancient mixed glossary vary greatly and cannot be

\* In addition to the analogies formerly pointed out, comp. the archaic repetition of the unit in 2 of *Changlo ngik ching* and *Mijhu n-khong*, or *n-khong*.

ascribed to the influence of a single dominant dialect. They are so numerous,—so universally present from Milchanang to Singpho and from Takpa to Burman,—and, in many cases, so peculiar in form or application,—that it is evident the Sifan and Bhotian glossaries were preceded over all the southern Himalaic province by a large and long established family of dialects having a common archaic basis, but, under the influence of the foreign Dravirian element and of time and segregation, differentiated much more than the present northern family. The fundamental unity of the mixed glossarial type is, at the same time, so distinctly marked, that it must be referred to the contact of a single northern family with a single branch of Dravirian at one epoch. That family, so well distinguished from Tibetan by the mass of its Chino-Himalaic vocables and so clearly indebted for its oldest southern acquisitions to one Dravirian fount, must have possessed a single grammatical form, and it is to be found in those dialects that have been least influenced by the later intrusive Sifan and Bhotian. If the Mon-Anam forms and applications of the Himalaic roots were once universal in the southern province, the Mon-Anam grammatical type must have been equally universal. In general, therefore, we see in the Mon-Anam ingredient of any given south Tibetoid dialect, as Milchanang or Karen, not a derivative from a diffusive or influential Mon-Anam language like Mon or Lau, but the remnant of the ancient Mon-Anam dialect of a district in which a Sifan tribe afterwards settled, transmuting the current tongue by the ordinary process, as the Sifan dialects of the sub-Himalayas have been partially transmuted by the presence of the Bhotian colonists. Whether the existing language is to be considered as the intrusive modified by the older, or as the latter modified by the former, depends, in general, on the relative proportions of the two ingredients; but these are sometimes such as to render it hardly possible, and certainly of little or no importance, to determine the point. In most cases the grammatical form identifies the language that has retained or acquired predominance. With the exception of the Mon, Kambojan, Anam, Lau and Pa-laong, the southern Himalaic dialects, are, in general, to be considered as Tibetan modified glossarially by Mon-Anam and Vindhyan. It is quite possible that many of the mixed dialects were at one period Mon-Anam in grammar, that is to say, that the mixed glossary was chiefly formed before the Tibetan influence prevailed over the native. But, in every case, the final assimilation of form must have resulted from the presence and supremacy of the Tibetan type. Thus if Kasia was at one time Mon-Anam in form, the tribe speaking it must have drawn a constantly increasing Tibetan element from the surrounding and intermixed Tibetoid dialects. The final transformation may have first taken place in a single frontier village which had constant intercourse with an influential tribe whose dialect had the Tibetan form; but the process was a spread of Tibetan rather than a modification of Mon-Anam. Of the two fashions of speech in which the village intercourse was carried on, the Tibetan, from some cause, came to be most used, and the native was eventually disused. On the other hand, the vocabulary must be considered as Mon-Anam modified by Tibetan, for not only a large portion of the general glossary, but some of the pronouns and numerals, remain Mon-Anam. Dialects so very hybrid can only be produced on the marches of two families. If either of the two advances, it extends the pure type. It is only when the village in which

a hybrid border type is prevalent, acquires power, that this type can be preserved or extended.

The special affinities of the Mon-Anam languages with the Barak circle of dialects are very numerous and close, and render it certain that, immediately before the dispersion of the Mon-Anam tribes to the eastward and southward, they occupied this province and its outskirts contemporaneously with tribes that are now mainly Tibeto-Burman. All the Mon-Anam languages have a proportion of the distinctive forms of this branch, indicative of a common descent or close intercourse. The agreement in fundamental traits proves that the glossarial agreement is attributable to both of these causes. But the difference in forms and applications is also very considerable, and the dialects must have been formed at a very remote period.

A glance at almost any of the columns in the subjoined tables will show that, in general, the Mon-Anam languages differ in the names applied even to the most common objects, as much as languages of two branches of the Indo-European family, e. g., as much as English does from French in the names for *sky, day, light, moon, water, stone, dog, hog, house*. But it will be found that most of the names are, nevertheless, different applications of the common Himalaic roots. Thus for *air* Anam has two roots khi and hoi (=soi),\* while the other vocabularies have strongly marked varieties of a liquid root lom, *b-loei, k-ya* (for *k-ra*); for *sky* Anam and the Kambojan group have varieties of the same liquid root *t-roi, h-rem, p-leng, lua*, while Kambojan has also mik and Mon and Lau have labial names of a distinct form; for *fire* Anam and Kambojan have the liquid lua, lung, leu, Mon the labial mot, met, and Lau the labial fui; for *dog* Anam has cho, Kambojan *chi-ke*, Mon *k-la* and Lau ma.

I have often had occasion to remark on the mode in which primitive vocabularies become differentiated. In examining the Himalaic names for the domestic animals the frequent agreement among names of different animals and variance in the names of the same animal, furnished a very striking illustration of the process. We found that the Himalaic glossary, in its earliest form, abounded in double-words like the Chinese, one being generic and the other specific. By the loss of the latter the same generic name has come to be used, in various forms, for several animals. Anam, even more than the cognate dialects, has acquired glossarial peculiarities from this cause. Its sequestered position and its Chinese tendency to monosyllabism have destroyed the Himalaic structure and homogeneity of its vocables. Many of its isolated monosyllables which, at first sight, appear to belong to a primitive and peculiar formation, are, in reality, fragments of the ancient double names of the Himalaic vocabulary, the substantive word being, in some cases, lost and the qualitative serving for it. Thus the words *voi elephant* and *chim bird* are not radically substantive names at all, but qualitives of size. The former is the Himalaic labial definitive applied to names of large animals and current as a major postfix; and the latter is the Chino-Himalaic diminutive still current with the meanings *small, child, son* &c. and used as a minor postfix in some dialects, as the liquid (-nok, -na &c.) is in others. The Kumi kha *boi, cov*, is an example of the regular qualitative use of *voi, woi, boi* &c.; and the Sak *wa-si, Jili ma-chik bird, Kuki thoi chim, Manipuri kak chang, ant*, of that of *chim, chik* &c. Similar fragmentary names occur in Western vocabularies, but they are generally accompanied by other vocables which show the true character of the qualitative.

The Mon, Lau and Anam differ more from each other in vocables (not in roots or their forms) than any of the Tibeto-Burman dialects, and the difference is so great that they may have existed as distinct languages before the first Himalaic migration to the Oceanic provinces. But much of the present extreme divergency is referable to the variable influence of Dravirian, Tibeto-Burman and Chinese dialects in different eras of their history. It may also be presumed that many ancient dialects of the Mon-Anam form merged in those of the three great civilised races. This process always increases the glossarial peculiarities of the recipient languages, and obliterates the links by which they originally graduated into each other.

Their later relations among themselves have induced special affinities.

The Ultraindian history of the Lau separates itself, to a great extent, from that of the other languages. It differs more from them than they do from each other. It has a much less proportion of the N. and E. Manipuric and Kol affinities, and a much larger one of the Abor-Yuma, with some independent affinities of its own to Bhotian. It has also peculiar and modern Chinese ingredients. Many of the most widely diffused applications of the common Himalaic roots are not found in Lau; and, on the other hand, it has a larger proportion of distinct archaic applications of them than any other of the southern vocabularies, Mon-Anam or Tibeto-Burman. This comparative independence must be attributed to its having early moved to an outlying north-eastern position.

Anam is distinguished by its strong Manipuric, Barak and Kol affinities. Consistently with this decided western element it has more vocables in common with Mon than with the conterminous Lau or Kambojan. It has a large and peculiar Chinese ingredient; and, under the influence of Chinese, its form has become monosyllabic.

The Mon and Kambojan vocabularies are much more closely allied than any of the others. The connection is so marked that it is evident the Mons must have colonised the valley of the Me-kong and engrafted a large portion of their vocables on the older dialects. Mon and Kambojan are distinguished by their broad and consonantal phonology and by the extent to which they retain prefixes. Hence they have a larger proportion of archaic forms than any of the other Himalaic vocabularies; and the Kambojan forms are often older than the Mon.

Mon has a considerable portion of Tibeto-Burman vocables. Its later accessions have been from the conterminous or intermixed Karen, Toung-thu, and Burman. Its Yuma and Manipuric affinities are comparatively small. Those with Kasia are considerable.

The Kambojan dialects have specific affinities with the Manipuric, Naga and Yuma, which distinguish them from Mon.

In illustration of these remarks I shall first give examples of the distinctive Mon-Anam phonetic forms or glossarial applications of the common Himalaic roots.

*Air*, lum Lau, the most archaic form extant of the Himalaic lung (Bhotian), lut, ryu, li &c.,—the same form, however, being preserved in Tibeto-Burman words for *white*.

*Sky*, k-rem Ka, p-leng Chong, lua, t-roi Anam. The Tibetan dialects have no example of this application of the liquid root, but it is common in the South, ta-ling (Abor), ram, rang &c.

*Sun*, mat t-roi Anam, (*eye of the sky*), mat nhut, An. (*eye of day*.)

archaic Chino-Himalaic idiom, (Chinese *ngit*, *thau*, *sky's head*). Manipu, *ric nai-mhik*, *nong-mit*, *tsing-mit* &c. Kumi *ka-ni ta-lup* (*lu head*), *Kyan ne-chu*.

*Sun*, *ta-ngwai* Mon, *ta-ngai* Kambojan, *Day* in Mon, Kamb. and Anam; an archaic Tibetan form, the parent of the prevalent *nyi*, *ni*, *nyin* &c. Allied archaic forms are preserved by Horpa *nga sun*, Arung, Koreng, Song-pu *nai day* in the compounds for *sun* (*ting-nai-mek*, *ting-nai-mik*, *nai-mhik*), Milchanang *lai*, Kapwi *tam-lai*, Jili *ta-na*.

*Sun*, *nhut* Anam (also *Day*), *ngit* Chinese, *nup* Khyeng, *nat* Kumi-rat Rakhoing. An archaic variety of the same Chino-Himalaic root. Bhotian has an archaic form in *nam sky*, (*sun* Limbu and Kiranti), and Scythic vocabularies have *num*, *nob*, *nup*, *nai*.

*Fire* *pho-lung*, *p-lung*, *p-len* Kambojan gr., *lua* Anam, *p-lo* *light* Kamb. This is the common Himalaic root for *white*, *day*, *sky*, *air*, *moon*. It is comon infor *light*, but its use as *fire* is confined to Kambojan and Anam.

*Fire*, *ka-mot* Mon. This is the oldest form extant of the common Himalaic vocable *mi* &c. Horpa has *mah*, the Thochu form for *sky*. The Burman *mogh sky* (*mik* Kambojan), Takpa *wot light* (Tibetan *hod*, *uik*, *wuh* &c.), and the Thochu, Anam, Lau and Yuma-Gangetic *phok* &c. *white* are similar archaic forms.

*Light*, *sang*, Anam, *tseng* Lau, *song-la* Mijhu, *sango* Khari, *chung-lung* Tiberkhad; com. for *white* in the southern vocabularies including Anam, and also applied to *air*, *day*, *sun* and *moon*. It is not Tibetan but archaic East Himalaic.

*Star*, *sau* Anam; an archaic form of the Yuma-Gangetic *sha*, *shi*, *si*, *ti* &c.

*Star*, *súm* Chong; a still older form, radix of the Chinese *sing*, *shan* &c. as well as of the current Himalaic varieties. The root is applied to *white*, *light*, *sky*, *air*, *sun*, *mom* &c. in cognate dialects,—*air* *zhung* Taying, *zhu* Thochu &c.

*Moon*, *mat t-rang* Anam, (*bright* or *white eye*); peculiar in idiom; but the names for *moon* and *star* are the root for *white* in most of the Himalaic languages.

*Moon*, *nguyet* Anam; archaic Chinese.

*Moon*, *khe*, *kang*, *kot* Kambojan gr., *pa-kien* Pa-laong. Arung has *ke-keu*, S. Tangkhul *a-khi*, Gadaba *ar-ke*, and *kha* is an element in the Bodo name. The guttural appears to be the archaic form of the Yuma-Gangetic *tang*, *ta*, *chang* &c.; Kambojan *pi-chan* (Luhuppa *ku-chang*), The same root is applied to *star* in the Kambojan group, *phu-kai*, corresponding with *gan*, *kan* &c. of the Maram gr., Singpho &c.

*Moon*, *ka-tok* Mon. This is an archaic form of a Dravido-Himalaic root for *white*. Bodo has *ha-thot-khi*, Anam *tho bak* (the same root conjoined with a Chinese vocable for *white*). The Mon form is similar to the Milchanang thog *white* (Anam tot.)

*Moon*. The Lau *duen*, *lun* &c. is the only full form of the com. Himalaic *lau*, *lu*, *lo*, *la*. The *u*, *o*, form is archaic Abor-Yuma.

The Mon *nong star*, Khoibu *ron* of *ti-k-ron*, are similar forms. The Lau form for *star* *lau*, *dau* &c. is the Khyeng, Lhopa and Gurung form for *moon*. The Taying *lua moon* has the form applied in Anam to *fire* and *sky*.

*Water*, *nuk* Anam; archaic Chino-Him., *lu'* Tie-chu. Varieties are

common in the S. Himalaic vocabularies, but they are closer to the Mon-Kambojan a form, *dak*, *dhiik*, *dat*, *tag* &c. Mon, Kamb., *nak*, *rak*, *rik*, *rai*, *ri*, *lau*, *la*, *lo*, *li* &c. com. for *water*, *river*, *liquid* (e. g. in names for *blood*, *oil*, *milk*, *egg*).

*Water*, *nam Lau*, a distinct archaic variety of the same root (=rang, rak) preserved in names for *oil*, *blood* &c. Bhotian, Lepcha, Kasia, Pa-laong.

*Blood*, *lut Lau*, a variety of the same root [ *lu'* *water* Tie-chu].

*Blood*, *chiam*, *chim* Mon, Kamb. (Tib. *thak*, *chui*, *shi* &c.)

*Country*, *s-rok* Kamb. (long, dong, ruong in other vocabularies).

*Mountain*, *p-nom* Kamb., *nong Chong*, *ma-nam* Ka, *lum* Kasia; non Siam, Anam; long, rong, dong, non &c. Manipuric &c.

*Stone*, *ka-mok*, *ta-mok* &c. Mon, Kamb.

*Stone*, *thak*, *da* An., *rak* Milch., *k-yauk* Burm. [=k-rauk].

*Head*, *ka-touk*, *ka-dap* Mon (also Abor.)

*Hair*, *sok* Mon, Kamer. (see p. 61).

*Eye*, *pa-mot* Mon, (mat, mik &c. com.). Chinese *muk*, *mo*; Garo has *mok-ron*, Bodo *mok-on*, *mu*, *Horpa* mo.

*Ear*, *ka-twon* Mon, *tai* An.; *Horn* and *Hand* in other S. Him. vocabularies.

*Tooth*, *ngeok*, *ngeat* Mon, *ba-niat* Kasia, (*mouth* in Burman, Singpho &c.)

*Hand*, *twai*, *tai*, *tæ*, *dei*, Mon, Kamb., Anam, Pa-laong; a root for *foot*, *bone*, *horn*. The Deoria *o-tun*, Taying *a-tua* appear to be older forms. Comp. *twon car* Mon. The forms *tun*, *tua* are also nearer to the contracted *su*, *si*, *ti*, Karen, Kasia, Vindhyan.

*Hand*, *mu Lau*. The Maram gr. has *pang* &c. Milchanang preserves *pung hand*, *bung foot*, Gyarung *ta-mi foot* &c.

*Bone*, *ka-duk*, *duk*, *nuk* Lau (*duk horn* Anam); *ka-yok* Khyeng, *a-hok* Kumi, *a-hot* Mru, *ru*, *hu* Yuma-Manip.

*Bone*, *ka'ang* Pa-laong, *cha'ang* K., *chang* Mon, *chiang*, *shuong* An., *khang* Changlo, *be-geng* Bodo.

*Man*, *nam* An.; *nan* Chinese, *lang*, Chinese, Him.

*Man*, *chong* An.; *k-tchong* Mijhu, *chho* Manyak, *me-sung* Tengsa, Nog.

*Man*, *khon*, *kun* Lau; *khun* Sok-pa, *kung male* Chinese.

*Father* sha, *cha* Anam, *ta* Kamb. (*p-sha man* Pwo Karen, *bi-shai husband* Bodo). *Mother* in the Nogaung gr.

*Father*, *a-puk* K., *a-pu* Koreng &c. (po. bo &c. com.); *bok*, *bo* *mother* Simang.

*Cat*, *sok* Anam; *tok-pa* Maram, *tong*, *tung*, *dong* Manipuric, *chu*, *cho*, *jo*, *thu*, *thi*, *si* &c. com.; a Him. root for *little* (in some cases *male*) found in names of most animals. Khamti retains a similar archaic form, *thuk male* (of animals), in Anam duk.

*Cat*, *chi-ma* K.; *min*, *mi* &c. are common. The K. is the only example of the *a* form.

*Dog*, *cho* An., *tsao* Pa-laong, an archaic Gangetic form, Bodo, Lepcha, Limbu, Kiranti, Vindhyan, Manipuric *cho*, *so*, *thu*, *shu*, *shi*, *si*, corresponding with *sok*, *cho*, *thu* &c. *cat*, (radically a minor qualitative and suffix.)

*Dog*, *kau*, *khuyen* An.; *khwi*, *kwi*, *ku*, com. Chino-Him.

*Dog*, *ka-lo* Mon. Peculiar. It is the com. Him. masc. vocable found

in the names of other animals. (See *Hog*.)

*Dog*, ma Lau. The H. fem. vocable extensively found in names of animals. The only other examples in those for the *dog* are the Champhung *a-val*, Angami and N. Tangkhal fu, phu. The Lau form is distinct from these, and is the same as that applied to the *cat* in Kambojan,

*Hog*, *ch-rok*, *ka-leik*, *k-lut*, *t-ru*, lon, le, K. M. A. (Mijhu, Taying. Abor gr., Gurung). This archaic Gangetic name is distinct from the com. Tibeto-Burman. It is a Him. masc. name, and also an archaic minor qualitative and postfix, found with similar forms in names for the *goat*, *monkey*, *cat*, *buffalo*, *cow*, *horse*, *elephant* &c.

*Hog*, mu Lau, distinct from the common Tibeto-Burman form bok, phag &c., and similar to forms current for *horse*, *elephant*, *cow*.

*Goat*, de An.

*Elephant*, voi An. Manipuric woi-pong, vu, mu &c.

*Elephant*, tam-rai, *ka-nai*, ruai, dum-re K. gr.; Kasia, Dhimal.

*Horse*, ngua An. (*Cow* Lau.)

*Tiger*, hum An., su sua Lau; Kuki, Maring, Khoibu, hum-pi &c.

*Tiger*, kop An.; gup-sa Sunwar.

*Monkey*, wok Lau; *ka-wuk* Sak, muh, we, be Mijhu, Singpho, Garo &c.

*Fish*, *t-rau*, *t-rai* K. gr., *p-la*, *p-a* Lau; *snake* in other H. vocabularies.

*Fish*, ka An., Mon, Pa-laong, Manipuric; com. Tibeto-Burman form nga, ngo &c.

*Snake*, nga, ngu, ngo Lau; *fish* in other H. vocabularies.

*Bird*, chim A., Mon, sim Pa-laong, Kasia, Kol; chik, thik, chi Jili, Manipuric, Sunwar (chim, chik &c. *small*; the subst. name dropt.)

*Bird*, nok, nuk Lau; rok, roi, rak Abor, Maram gr., Kol (root *small*, used as a minor suffix. See *Hog*.)

*Black*, nam, nin, dam Lau; nak com. Him. form. The archaic Lau terminal is found in some words for *night*, nam-mo Lhopa, sanap (*shy black*) Lepcha, Jili (sa=sak *shy*).

*White*, sak Anam, a-tik O. Kuki, thog Milch; *Day* zhag Bhot, sak Lep cha, zhang, Tiberkh, song saing, sang com.; *Shy* sak Limbu tsuk Kyau; *Light* tak-to Chepang, dug Bhot, thung, sang &c. com. *Hot*, *Burn*, thak Nams., tsuk Nog., sik Tenga, zhang Milch.





## A.

COMPARATIVE VOCABULARY OF THE NUMERALS OF THE  
MON-ANAM FORMATION.

## One.

*India*,—moi, midh, miad, mia, mi, mea (Kol, Gond). *Ultraindia*,—wei Kas; muo, maai, Mon; bo Karen; po Angami Naga; aima Singpho; moe Kamboja, Ka, Chong; mot, Anam. *Malay Peninsula*,—mui Besisi. *Asonesia*?—amui (2) Mairasi; labui. Bruner I. (2). Mui, moi, moe, is probably the oldest of these forms *Africa*,—Kicamba umue (Suah. mo-ja, S. Af. mu-sa, mo-chi &c.); Akuongo, ema; Cam. mo; Nuba wa-rum, wee-ra &c.; Rungo mo-ri, Benin bo. *N. and M. Asian*,—om, uem, Samoied.; emu, omin &c. Tungus.

## Two.

*Ind.*,—bar-ia, Kol, bar-ea, Gond. *Ultra*—ar. Kasia; ba Mon; bar Ka, Chong; pia Kamb. (3 of Kol); hei, Anam. *Mal. Pen.*,—be, Simang; mar, ha-mar, ma, Binua. *N. Asia*,—mal-goh, Chukchi. *E. and S. African*,—biri &c.; *W. Afr.*—fire &c, Akuanya, epa; Cam. ba; Karab. ebah; Rungo mba-ni; Calb. ma; Mok, iba; Bong. baba; Bin. be; lb. aboar, abo.

## Three.

*Ind.*,—op-ia, p-ia Kol. Gond. *Ult.*—pui, pai, Mon; peh, Ka, Chong; bai Kamb., ba Anam. *Mal. Pen.*,—wiup, Sim.; am-pi, am-pe, am-pet, Binua.

I can find no decided foreign affinities. The term (*pui*, Mon, *wui-p* Simang) appears to be a flexion of *mui* 1. The Binua form appears to have been modified to accord with the Malay *am-pat* 4, the Binua terms above 3 being Malay. In the extreme N. E. of Asia and the adjacent Polar American languages of the same formation, *pi* is an element in 2, *pi-gayut*, Chukchi, Eskimo. It does not occur in N. American formations.

There is a distinct term for 3, having a very limited range,—lai Kasia; lui, Car Nicobar; luba Nankowry. Unless the Namsang *van-ram*, Mulung and Tablung lem, are connected with this word, it has no other direct affinities that are very obvious. The following terms may be related to it;—Kassia *han-dai*, *hon-dai* 2 (? 6, 3; ku is 6 in Kuki, Karen &c, but here it may be merely the Kassia prefix *ha*, -d and r being frequently preceded by n in Kassia); rai, 8, Bongju, roe Kuki [See EIGHT]. There is another, and, as it appears to me, more probable explanation of this form. If the basis of the Mon-Anam system was strictly binary, and *pui*, *wui*, is simply *mui*, 1, a little disguised, the Nicobar *lui* may be the original form of the Kasia *lai*, and, like *pui*, a mere variation of *mui*.

## Four.

*Ind.*—pon-ia, u-pun-ia, u-pn-ia Kol; o-pun-ia, u-phun Gond. *Ultra*,—pon, Mon; pon, Chong; puan, Ka; buan, boan, Kamb.; bun Anam; fuan, feun, fen, Nicobar. (? *lemang*, Simang).

This numeral is very remarkable. It is a modification, found in *Asonesia*, of the *Africo-Malagasi* term which, in another form, has spread

so widely over Asonesia. *Mid.-Africa* (Hausa, Galla, Saumali, &c.) fudu, iulu, ofur; Malagasi *efar, efad* &c. *Asonesia*,—*an-fa*, Nias; *an-far*, Keh; *hai-phar*, Tanne; *fan, fang*, Caroline; *far-fat* Marian; *owang Pelew*; *hau*, New Guinea. The more common Asonesian form is the dental pat, *am-pat* &c. The root is Egyptian and Iranian (*ftu, four, chat-var, fuso* &c.) It is simply a variation of the similar root for 2 (i. e. the dual of 2, as in other binary systems): The Ultrafrican and Indian forms cannot be derived from the Iranian *chat-var*. They are evidently connected with the ancient Asonesian form prevalent in Micronesia and derived from Malagasi. Taken with the fact that the terms for 1, 2, (and 3, if a mere flexion of 1) are also African, they afford some proof that the same long enduring western civilization which carried Malagasi and E. African words to Asonesia, at one time embraced Ultrafrica in its influence.

### Five.

*san*, Kasia; *pa-sun*, Mon; *thanin, tuni*, Nicobar; *chang, Ka*. The Lau *ha* appears to be a modified contraction of *san, tha*. The Kuki *sun-ha*, Bongju *tswur-kar*, Car. Nicobar *sum, 10*, is probably the same term. It is African, being found in the same formation to which the Malagasi owes so much, and from which the previous Vindyan terms may also have been derived,—Galla, Saumali, shan, zan. That it is an ancient Mid-African root, belonging to a diffusive civilization, is evinced by the progress it has made to the Westward and Southward. Binin, tang, Papah-al-tong, Cam. *ma-tan* (this language has also the Vindyan and Ultrafrican 1, 2), Calbra *son-ni*; Rungo *otani* (Comp. the Nicobar forms); S. African *sanu, tanu*, &c. The same root is also Samoic, Tungusian and Aleutian (*sam, tong, chang, san, sun*) an Asiatic distribution which shews that its diffusion in Asia and Africa was anterior not only to that of the Iranian, Semitic and Caucasian, but to that of the prevalent Scythic, numeral systems. Radically the word signifies "hand". It is found with this sense in Dravidian as in many other languages.

In the Menam basin a second term is preserved, *pram, Chiong, Kamb*; *nam, lam, Anam*. The root appears to be *ram, lam, nam*, and *p* to be a prefix, as in Mon. The Nankowry *lam, 10*, is the same term.

The Vindyan term is *mor-ia, mone-ya, mone, mo-ya, Kol*; *mua-ia, muna-* Gond., which may be an inversion of the Kambojan and Anam, or *vice versa*. If the Mon term had been Tibeto-Burman, there would have been grounds for identifying the Vindyan and Kambojan vocables and considering them as representing the original Mon. But as the Mon term is native or African, this explanation appears to be inadmissible. If the Vindyan term has displaced an older one of Mon origin, it may have been derived from the Tibeto-Burman *pungu, phungu, Naga*; *bonga, Garo*; *phong Mikir* &c.

The Kambojan and Anam term is not only found in the Nankowry *lam, 5*, but in Daphla *raug, 10, Mon, klem, 100 (Ka dam, Anam. tam)* and in shorter forms, *ra* &c., in the Naga dialects, *Garo, Mikir, Bongju, Kuki, Kambojan, and Lau*, with the power of 10, 100, 20 &c. All these forms appear to be referable to the binary nomenclature, which some of the terms for "eight" prove to have co-existed with the quinary. *Ram, 5*, is probably an abbreviation of *ra-ma*, that is *ra 4 (or 2 dual) and ma, 1*. In the same way the Vindyan *5, muna* &c., may be a flexion of *pun, 4*. From the evidence afforded by some of the higher

numbers that the Mon system used both the binary and quinary methods of expressing those numbers, a usage by no means singular, I have little hesitation in referring both the Vindyan and Kambojan terms to the single Mon-Anam system.

Although I can find nothing to warrant the opinion that the Vindyan and Kambojan languages might have obtained separate terms from East Africa, for I have no doubt that all their African terms were received through the Mon, it should be remarked that analogous words are current in some African vocabularies. The true explanation, I conceive, is, that the African terms in question are formed from the same binary definitive roots, *ma, ba &c*; *ra, la, na &c*. A Suahili dialect has *manut*, and to the westward forms similar to the Indian and Ultraindian occur, —*mun, Bullom*; *mu, Kru*; *num, Akin*; *qum Amina*.

### Six.

The Vindyan terms, like some of the Ultraindian, appear to be Tibetan. *Ind.*—*tur-ia, turu-ya, turui* Kol.; *turm, turme* Gond. The Gond has an exceptional term *sa-rong* (*sa* is a prefix in 5 also, *s-aij-an*; *yaij* Toda) which appears to be simply *ru* of the Kol dialects nasalised. But it may be directly derived from the Naga form *so-ru*. In the Gawil form the *ng* becomes *m*. *Ultr.*—*ka-rao* Mon; the *Bongju, Kasia, Burma, Singphu, Chong* and *Ka* terms are all similar antique modifications of the Tibetan. The *Ka-rao* is a derivative of the Mon. The *Chong ka-dong* is a nasalised form similar to the Gond *sa-rong*. In *Bodo, Dhimal, Bongju* and *Naga*, forms in *t, d* and *r* also occur.

The anomalous terms are *tha-ful, tu-ful, ta-fad* Nicobar; *shauk Kyeng*; *sau'* (abrupt accent for *k*) Anam. The Nicobar term may be composed of *tha* 5 (from *thanin*) and *ful, fud*, which should represent 1. A similar term for 1 does not exist in the Indian, Ultraindian or Asonesian province, save in the Egypto-African *wotu, uotu, motu &c.* but in the latter it is used for 10 (i. e. *one tale*). It is probable therefore that *ful* is a Mon-Anam binary term formed flexionally from *pun, fun, 4*. *Tha* may either be from the previous term on the repetitive principle, or it may be the Mon-Anam prefix. *Shauk, sau'* has a deceptive appearance of affinity with a wide spread African, Iranian, Caucasian and N. Asian term, the final of which is generally *t*. African, *shita, sita, seda &c.*; Semitic *shat, hat*; Ugr, *chut, hat*; Iranian *shash, sechs, six*. But it is merely one of the numerous variations which the Tibetan root undergoes. The original may have been the sibilant *thauk* or *thuk*. The *Rakhoing khrauk* preserves the broad vowel.

### Seven.

Mon, *ka-bok*; *Ka, pah*; Anam, *bei*. This term is a flexion of 2 (the word for 5 being omitted, as it is in most of the other formations). I have already mentioned that most of the Ultraindian and Himalayan languages adhere to the Mon-Anam quinary principle in forming the term for 7, and that a large number of them indicate the commencement of the higher series of numbers, or those above 5, by the prefix (generally *ta, ka*). *Lepcha* preserves *ka* in all the terms from 6 to 10; and *Kiranti*, which, in its word for 2 (*ha-sat*), retains an ancient root which reappears in other languages in terms for 4 and 8 (*i-sat* *Namsang Naga*), has another archaic term in *bhag-ya, 7*, which is evidently the Mon *bok*. The Nicobar *sat* might appear to be *Hindi*, but as the *Nancowry* dialect has *ha-kiat*, which resembles the *Lau* form of the Chinese term (*chiat*),

sat is probably Chinese also. The Chinese root is very widely spread (Ugrian, Iranian, African &c.)

Ind. *i-ya*, *e-ia*, *i-air* Kol; *a-ya*, *a-iaah*, Gond. (Some Kol dialects have taken Hindi terms). This is the Dravirian *e* (*e-zha*, *e-l*, *ye-au* &c.)

### Eight.

Ind. *iral*, *irl-ia* Kol; *ilhar*, *elar-ia*, Gond. This term appears to be an archaic binary one, a flexion or reduplication of the Dravirian 2, *ir*, and to be related to that for 9 and 10, as in the Dravirian system.

In some of the Ultraindian and Himalayan languages the term for 8 is a similar flexion of the ancient Mon-Anam root in *r* for 2 or 4. It is found in the Yuma group and the Nicobars,—*rai-kar* Bonggu; *raa* Kuki; *prah* Kasia; *awera*, *Car-Nicob.*; *Kiranti*, *re-ya*; *Murmi*, *Gürung* *pre* (comp. 4, *re*, *pli*, &c.)

The other prevalent terms appear to have been adopted from the Chinese. The Mon *ka-cham*, *Ka* and *Anam tam*, appears to be the Chino-Tibetan *sum*, *tum*, *tham* 3 (5, 3) on the same principle that 7 is 2 (5, 2) in many of the Ultraindian and Himalayan languages. The Burmese *shit*, *si*, *Chong ka-ti*, *Kyeng shat*, *Singpho ma-tsat*, *Naga cheth*, *chet*, *thuth*, *chat*, *sat*, *sep*, *te*, *tha*, *Garo chet*, probably involve a misapplication of the Chinese term for 7, *ch'hit*, *ch'her*, *sit*, *thet*, *tsih*. The Abor-Miri *pu-nit-ko*, *Miri pinye*, *Daphla plag-nag* are 4, 2. Binary terms for 8 appear to have formed the limit or highest number of the scale at one time, for they have been applied to 10 and even 100 [See *Ten*.]

### Nine.

Mon, *ka-chit*; *Ka*, *chin*; *Anam chin*; *Karen chi*. This is the Chinese 1, *i. e.* 1 short of 10, as in Dravirian and Mikir. The *Chong ka-sar* is peculiar. It is perhaps from the Chino-Tib. *san* 3.

Ind.—*ar-aa*, *ar-e*, *ar-he*, *ar-aiak*. Although *ar* is apparently a flexion of the *ir* of 8, which is 2, it is probable that it represents 1, as in the Dravirian terms. In the Male *or-t*, 1, the Drav. on takes a vibratory form, and in Tuluva the common term for 9, *om-bodo* (*i. e.* 1, 10), takes *or* as a pref. (*oram-bo*).

### Ten.

Ind.—*gelea*, *gel* Kol., *gulea*, *gil*, Gond. The Angami and Mozome-Angami *kerr*, *kurr* resembles *gel*. *Kerr* is evidently a derivative from the Naga *thelu*, *taru* &c. The only analogous foreign form appears to be the Chukchi *kulle*, and both are connected with African terms for 1 (*kulle*, *Sokko* &c.) *Hissi*, 20, is evidently the Hindi *bis*, the commutation of the labials and the aspirate being easy and common.

In several of the Ultraindian languages the African root for 2 in *r*, which enters both into the Dravirian and Mon-Anam systems, re-appears in higher numbers, as in African languages, a consequence of the ultimate binary basis. *Rae* Bongzu *rae*, *Kuki* is 8, in *Chong* it is 10, in *Lau* and *Kambojan* it is 100 (*roa*, *roe* K., *noi*, *hoe* L.) In other languages also it is used for 10. It appears in the *Anam mare*, *Naga taru*, *tarah*, *thelu*, *kerr*, *kurr*, and *Kumi ho-re* 10. With these compare the Burmese *tar*, *taya*, *Karen taraya*, *Mikir phar* 100. [The Nancowry *lam* 10, *Ka dam*, *Anam tam*, *Mon klom*, 100, appear to be formed from 5, *nam*, *lam*, *ram*, or from 8, *tam*, *Anam*, *Ka*.] As a connection between 8 and 10 or 100 exists in the case of *rai*, and is also remarked in the Tibetan and Chinese systems, the latter is probably the true

derivation. In the Namsang Naga, which uses the Chinese *chi* for 10, the ancient term is retained in 20 and the higher terms. 20 *ruakngi* (10, 2). 30 *ruakrami* (10, 3). The *ak* is probably a connective like *ka* in the Khari *taruhane*, 12, (10, 2), *tarahasam*, 13, (10, 3). In Khari and Angami *ra* occurs, following the lower number, Khari, 30, *samrah*, (3, 16), 40, *lirah*, (4, 10); Angami, 30, *seri*, (3, 10, in this dialect *sa* becomes *she*), 40 *lhida*, 50 *rhipengu* (10, 5). Mozome-Angami, 30 *surr*; 40 *lhida*, 50 *ripungu*. *Ra* also enters into the terms for 100 in some of the Naga dialects,—*rakru* Nagaung, *rukrah* Khari, contracted to *kra*, *kra* in Angami and M. Angami. Some of the Yuma dialects also preserve *ia*, c. *Bongju*, 20 *rubu-kar* (10, 2, the term for 2 being Mon-Anam also.) The Abor-Miri has no trace of this term, but in Dophla it maintains its place throughout, 10 *rang*, 11 *rang-la-akin* (10 and 1) &c., 20 *rangchang*. In Bodo, Dhimal and the Nipal languages I do not remark any trace of it. In Garo it occurs in the Mikir form for 20, *rung*. The Aryanised Gangetic languages possibly retain it in the numbers between 10 and 20, e. g. 11 *ega-ra*, 12 *ba-ra* (in which *ba* may be Mon-Anam\*) 13 *te-ra* &c. With these comp. the Sanskrit *eka-dashan*, *dwa-dashan*, *trayo-dashan*.

In several of the Kumi dialects the Mon and Kasia *sun*, *san*, 5, reappears as 10,—Kuki, *sun-ka*, *sum-ka*; Car Nicobar, *sum*; Bongju *tswur-kar*; Kyau, *tchuom*; so Kumi, 100, *tchun wai-re*.

In most of the Naga dialects 20 appears to have partially retained a Mon-Anam character. The terms are *ma-chi*, *ma-tsu*, *tha*, *tsa*, *cha*, *makhi*, *me-ku*, *ma-ku*, in which, *cha*, *tha* &c. are the Tibetan "ten." In Namsang *cha* is also used for 100, *cha-the*. In the terms for 20, *ma* must stand for "two," that is, it is the Mon-Anam *na*, *ba* &c., 2. This is confirmed by the Mon *ba-chi*, Chong *bar-se*, *Ka bar-chit*, all signifying "two-ten." The Kambojan *ma-pai* is a similar term, but the use of *pai* for 10 is anomalous if it be the Kamb. *bai*, 3. It may be connected with *rai*, *hai*, Mon-Anam flexions of 2, but it is more likely to be a form of "one," Kasia *wei*. It is very remarkable that the same term appears to be preserved in the Murmi 10, *chi-wai* (*one-ten*), and in the thence derived Sunwar 100, *swai-ka* (*hundred-one*.) In Kumi it occurs in *tchun wai-re*, 100, in which *tchun* and *re* both represent 10; from 40 to 90, *wi* is used for 10, and it is probably a contraction of *wai*. In some of the Murmi numbers *to-kol* is used for 20 or "score." It is evidently connected with the Naga and Mon-Anam *ma-ku*, *ba-chi* &c. It may be inferred from this that the Iepcha and Lhopa *kha*, *khe*, "score" are fragments of similar terms, the prefix for "ten" having come to represent "twenty," like the corresponding *cha* &c in some of the Naga dialects. The anomalous *sau*, 20, of the northern Lau dialects (Lau, Ahom &c.) is probably a variation of the same Naga form. The purer Siamese retains the Chinese term *ye sip* (2, 10).

In four of the Naga dialects the term for 10 is *ban*, *pan*, which is probably from *banga*, *pangu* &c. (Kumi *pang*, Mikir *phong*).† The Kasia

\* Bopp derives *ba* from the Arian *dwa*, and *ra*, *re* from the Arian *dasha*, *deka* (Comp Gram § 319) The contraction of *dasha* into *da* is not improbable, and the conversion of *da* into *ra* would be easy.

† It may be connected with the Chinese *wan* or *ban*, "ten thousand", originally the highest simple term of their system, and which the Manchus have appropriated to 1,000 *wuan*.

shi-pon appends the same word to the Chinese shi. The Limbu thi-hon appears to be directly derived from the Kasia term. In both systems hon &c., represent 10 in the higher numbers, 20 Kasia arphon (2, 10), Limbu ni bong; 30 K. lai pon, L. sum bong. Kasia continues to use pon in the terms above 30, but Limbu discards it and adopts gip which is the Kiranti kip, 10, the Mikir variety of the Chinese chip. Kumi has also among its 20 and the higher numbers.

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## B.

### COMPARATIVE VOCABULARY OF MISCELLANEOUS WORDS OF THE

#### MON-ANAM FORMATION.

In the following list of Mon-Anam words I include all that are found in the Ultraiudian languages that remain prepositional. But a considerable number are Chinese more than Ultraiudian, and many do not belong to any glossarial formation that has predominated in Ultraiudia. Several have also been derived by the Mon-Anam from the Tibeto-Ultraiudian vocabularies. On the other hand, many words, widely diffused in the N. Ultraiudian and Gangetic languages, that do not appear in this list, probably belonged originally to the prepositional formation, and have been lost in the progress of those changes to which all glossaries are subject.

#### I. Air.

a. An hoi ("wind" jo); Kol hoio, hove, hoyoh.

Ar. hawa; Mong ahur; Tib. ahur ("wind"), Abor asar, "wind"; Bengali swar; Burm. hong si w. *Af.*—Danak. haha, hahaito &c. w.; Dalla soneta w., Malagasi isoute, isonte w.; Malg.-Asones. angine, ange, angin, hangin &c. w. *Ason.*—Kyan ba-hoie, Pol. sau (Semitic, Malag.).

b. Kamb. akas; Manipuri masu, masi, mashia, marthi, nung-sit; Sunw. pha-se, Milch. hash. (Root probably *as, ash, hash, sa, su, si, shi, thi, se* &c.)

Jap. kase; Fin gaiso, aiseh; Persian, Turk. yosi, awasy; Ug. wes-ees; Mong. Tib. asur, (Abor asar); Samoid. masi, bursi, barshi &c. w. The Ultraiudo-Himalayan root is evidently *as, sa, &c.* and identical with *a*, but in some of the above Mid-Asian terms *si* &c. may be merely the def. postfixed to other wide spread roots. It occurs in numerous other Asiatic and African terms, combined with formatives or with other roots. It appears to be radically identical with the preceding term, (*a*). In the Kambojan form, the vowel of the pref. has been euphonically transposed, *ak-as* for *ka-as* or *ka-sa*. *Ason.*—Wugi asa, Ende, Solor as. Pol. sau, (Bajo srua, Pagai rusa.)

c. Mon kya, kia (also "wind"); Nag. tikhe; Goud koeyo w. [? Kol hoya]. Comp. Drav.

Mong. kei w. (See Drav.). *Ason.*—(See Drav.)

d. Mon. bloei; (An. "Sky").

Sansk. vata, Beng. batak. Europ. ventus &c.; Hind. bad, Bod. bar, Gar. bal; Ug. wire, wot, wat, Sam bar-shi &c.; Korea pusan, pharang Kanch. epulud &c. (Manipuri phansa &c.). *Af.*—Sach. maro. *Ason.*—("wind") Binua barua, Meri bernai, Cel. bes paire, pori, New Guin. w. rei. Aust. porowu, mailo, boran, wiri-nguma, padru; Sabimb. badi, Mag. padak (Drav. *c.*, *a*)

*sa.* Lan lom, Goro lam par (See *T. U. lang* &c.; Drav. *b.*)

2. *Ant.*

a. An kin, Kas. *ka dakin*, Singp. *gagin*.

(? Singhal kumbi); Ason.—Taraw. kino, Ach. I fno, Sumba kama-ula, Kis. ugama, Timor kuva.

b. Lau mot, mut, puak; Kamb. *sar-muit*; Mon *sa-mot*, *kha mwot*; Dhim *nha mui*, Kol mui, mue; N'w imo; Male pok; Ur. *poi* (Lau.)  
(? Siuah *makoro*); Ason.—Mal., Indon samut (Mou), Binau *pa*, *i, pa*.

3. *Arrow.*

a. An ten, Ka tong, Manip. than, the; Nag. *la'chan*, *la'ang*, *lusang*, *lahan*; Siam *luk-soi*, Mik. thul, Khyan thar, Kum, tai; Lumbu tong, Lepch. chong.

Yenesei tem, tum & ; Tungus. *sir-dan*, Sam. *changa*, Mong. *somu*, *chomu*, *sunun*; Chin. ten chi, Sam. *tise*; Beng. Hind. *tir* (Manip. *tel*). [The roots in *ka* are probably identical with those in *t*, *ch*, *s*. Chin. *chi an*, *dian*, &c.; Lau kong; Sindh. *kan* (arrow); Asam *kanr*, (*arr*); Drav. *kanei*, (*arr*); Mon *knya*, *kon*, *tanga*). The same root is used for "bow" in many languages.—Lau tanu, thanu, Ka tongah, Kamb. *ting*, Mon *tanga*, *tangah* *krang*, Singp. *ndan*, Pali tanu, Singh. *dunni*, Beng. Hind. *dhanuk*.] Ason.—Bis. *odong*, *odiong*, Bin. Mal. &c. *damak*, *dama*, Bin. *lamaka*, (but this form may be connected with the Semitic *rama*), Jav. *kandewa* (bow). The Malagasi *pana*, *tana* &c. has kept its ground in most of the Niha-Polynesian vocabularies.

b. Mon lay, leou, Kamb. *piruen* (See T. U.)

Ason.—Pagai *rorou*.

c. Kas. *ka knam* (prob. *a*.—*ka* from *kan*, with the initial nasalised).

4. *Bird.*

a. An. *chim*, Mon *sin ngat*, *kachim*, Kas. *ka sim*; Gond (Gawil) *sim*; Bilong *sison*; Nic. *ihim* (? Kol. *chene*, Kir. *chongwa*, Sunw. *chiwa*, Bodo *don-chen*) [See T. U.]

Ch. *chio*, *chiau*; Mong. *sibechu*, *shobon*, *shobo* &c. Sam. *teshunda*, *chiacha*, Koriak *atsbel*, Aino *tschipkar*, Arm. *trshan*, Sansk. *porchi*. Af.—Saumali *shim-bir*, Galla *sin-bira* &c. Ason.—Binau *chim*; (? Mad. *acham*).

b. Kamb. *sat*; (prob. T. U. *sa* &c., with a Kamb. consonantal final.)

c. Lau *nok*, *nuk*, *naut*, Burm. *nghak*, *nget*, Kapwi *nghet*, Murmā *naga*, Urao *orak*. In Abor-Miri it is preserved in *rok pi* "bird's-egg", both words being Vindyan.

E. Cauc. *angko*, *anko*, *anako*, *woenucho*, *aka-onoch*, *anakwi*; Sansk. *heyanggo*, *bihanga*; [Malaya &c. *anggas*, *angkas*]. Af.—*luke*, Galla ('fowl'). Ason.—Niha-Pol. (common), *manuk*, *manu*, *manuko* ('acc. *woenuko*) &c., N. Austral. *aluk*, *lukaluk*, &c. (? Galla). The great prevalence of this term in the Indo-Pacific vocabularies and the prefix *ma*, render it probable that it existed in the Naga-Manipuri and allied dialects before it was displaced by the Tibetan *vo*, *sa* &c.

[It is not probable that a root for "bird" is peculiar on the Aso-European Continent to the E. Caucasian group on the one side, and to Lau and a few other adjacent languages on the other. Is it evidently connected with the almost universal root for "duck" Tangus. *niki*, Mong. *nogusuu*, *nogd sa*, Turk. *arak* (Urao, *orak* "bird") *ordek*, *artuk* &c., Pashtu. *ordek*, Ug. *batta*, *wase*, *wasig*, &c. (*t*, *s* for *d*, *t*, *n*)? E. Afr. *bitak*; Ind.—*batak*, *budek* &c.; Arab *bato*; Span. *patu*; Indones. *itek*, *ite*, *itik*, *iti* &c. (Gond, *itte*, "bird"); Engl. *duck* Sw. *duka*.

5. *Blood*

a. An. mau; ? Kol myun, [? Ugr male, wnor ak, wvar, urr, ver &c. Kriak m d yo-mul, Korea ko mar; Afr Shang. mohba]

*Ason*—Simang, Binua, maham, mohom [? Z-nd. wobone], Kis-meang (Kol), Torres St man; Austral komara (Korea.)

b. An. tiet (Chinese).

c. K. chiam, Mon chim, Kar. thwi, Yuma ti, thwe, si, thi, hi, i, sai, chai, Koreng tozai, Jili tasai, Garo chi, Dhim. luki, Deor. Ch. chui, Boi. thoi, Tiberk. shui, New. hi, Limb. makhi, Lepch vi, Chep. wi, Changl vi, Sunw. usi; Mag. hyu, Kir. hau, ? Male kesa.

(Lin. chiué, hiut, hue, he', Japan tachi, zi, Aino. kin; Tungus. senyi, shoma, Turk chan, kan, you &c. Circass. cha, Mi-jai. zi, jich; Arn. anvon, Lat. sanguis. Afr.—Malagasi razana, zanaka &c. *Ason*—imang cheong, Bin. za, zais.

d. Lau leut, lut, let.

Kaslm., Sin'hi, rat, Tamil ratam &c, Sansk. rudira, Drav. udiram return. *Ason*—funda let, N. Austral. elod.

e. Kas. snam (?a Kol; but probably sam (c.) with the initial nasalised.)

6. *Boat*.

a. An. ding, chi liuang, Kas. liing (See T. U. and Drav.)

b. K. tuk, tup, tutuit, Chong dok, Ka duak (T. U. and Drav. thu, o'a, donca &c. with a Kamb. consonantal final).

*Ason*—huruk Kayan [Naga sarung, Abor hulung]; biduk Bajo, Paisir.

c. M. kleng, galon, Naga lung, long &c. (See T. U.). Leng is connected with the slender Burman form lue.

d. L. reua, ru, heu, hu (See T. U., Mishmi, rua &c.)

7. *Bone*.

a. An. shung, Chiang, K. cha'ang, Mon. tsu, Deor Ch pichen, Kas. shing. Kol jung, Ur. Male kochal, Kirant. sai-ba, Limb. sa-ot.

Tuik. s'ou a, syc mjok, suuk, suik &c.; Jap. hone; Iran. os, asthi, &c.

*Ason*—im. ji'is, Bin. jahang (Kol), Tobi ch. (Male, Ur.), Pol. sui, hui, sivi.

b. Lau duk, nuk, kaduk, (Manip. arukhai, Tib. ruko, Lhop. rutok &c.)

Cauc. rekka, ratla, rotli &c.

8. *Buffaloe*.

a. An. kleng-nuk, Mon. priang, p'en. Mikir chelong, j'olang (K'hoibu mamuk, "cow"), (Changlo brung; Kas. s'ireh, Naga le, tali; Manip. lui, iroi, woi-hoi; saloi, alui, aghoi, ng'alui, silci, ra.oi (See Drav.); K'o cha-lawe

*Ason*—bin. Mangk. Wug. talong, Mandh. Dor. terang, Ilok. nuang.

b. Kamb. krabo, karlu, kar-lai, Ka kar-pn. Ch'ong, L., khrai, khwai, Bu m. kyue, Kol kara, kera (Drav. The final *bu*, *bo* is probably the wide spread word for "ox" &c., which, in the Manipuri and Yuma dialects is also used in compounds e.g. (woi-rhoi "buffaloe", woi-tom "cat").

*Ason*—Indon. krabui, kripue, karabao, horobau, karbau, kabu, kabu, kchao, kibo &c.



9. *Cat.*

- a. An. m'au, L. miao, meau, Kas. miao, Garo myou [See T. U.]  
 b. K. *chima* [Manip. See T. U.]  
 c. M. *pa-khwai* [See Drav.]  
 Korea, koi; A. —Kwil. paka.

10. *Cow.*

a. An. bo, bou; Lau woa (T. U. ba, nwa &c.; the amplified vowel is found in the Songpu *woi* prefixed to other words for "cow", "buffaloe" and "elephant" [See Buffaloe].

b. An. sung-krau, Mon kleau, Kar. klo.

Drav. akalu, (auc. aka, Hind. goru; Tungus. *hokor*, *ukur* &c. Fin. *sagar*, *iskar* &c. Arab. *bagar*.

c. K. ku, L. ngua, ngo, ngoa, hu, Mon. nua, Burm. ngi, Bhut. ngo, Jili *tanga*. The last term may be connected with some names for the "buffaloe" in adjacent languages,—Naga chang, tyang, Dhim. dia. The Mon nua is evidently the same as the Burman and Karen nwa, which may be the T. U. wa. The Kambojan ku appears to be nearer the Chinese (gu) or Indian (go, gao &c.) forms of the wide spread guttural root.

Ch. ngui, Turk. ona, ina, inak, Magy. uno.

d. M. kwon hban, Kar. wa bing, Rakh. min, Naga man (See T. U.)

e. Kas. masoi, Naga masei, Garo. mashu, Bodo mashujo, Tami. pasu.

Ugr. mus &c. Latin bos (See Drav. *b*).

11. *Crow.*

a. An. kon-kwa; L. ka, kawa; Dhim. Gond. Kir. Murmi kawa; Limb. ahwa; Mund. Bhumij kova

Ka is a com. Drav., Tib., Asiatic and Asonesian root. Sindhi kaw, Wash. kav. Ason.—Bat. Bug. gawo', Tojo gawap, Parig. kau, Pol. kaosa, (Indon. kuwau, kuau, "bird", "pheasant" &c.)

12. *Day.*

[See "Sun"].

13. *Dog.*

a. An., Ka, Chong cho; Kas. *ksen*; *kasen*; Naga su, hu, hi, *tasu*, *shetu*, az; Manip. *thu*, *thi*, *shi*, *si*; Mik. hi; Mrung tchai; Deor. Ch. *shi*; Bod. *choi ma*, *chi ma*, *sei ma*; Lepch. *kazeu*, Kir. *kochu*, New. *khicha*, Mag. *chhyu*, Sunw. *kuchung*.

Cauc. *choi*, *sohy*, *hue*, *he*, *kechi*, *chwa*, *koy*, *chhah*; Sansk. *shoa*, *shoan*, Pali *sa*, Arm. *shun*, Kashm. *hun*, Germ. *hund*, Fr. *chien* &c. &c. Af.—Darf. *asa*, Fel. *hyen*. Ason.—Bin. *cho*, *chu*, *chor*; Indon. (com., Achin to Iloko) *asu*, *aso* (Naga pref.); *acho* Kis., *aho*, Solor. The Balignini *kiching*, Pont. *hisong*, Kand. *kasoo*, Komr. *kujo* are more immediately allied to the Kasi Kumuk, Himalayan and Kasia forms. In Malay and some other languages *kuching* is applied to the "cat" (comp. Balig. *kiching*, Sunwar *kuchung* "dog"), while the root takes a different prefix when applied to the dog,—*anjing*; Mairas. *antsing*. In the Sassak *basong*, Koti *basa*, the root takes another of the prefixes common to Ultraindian and Asonesian languages.

b. Kamb. *chake*, *chike* (prob. T. U., eki Ab., khwe Burm., kai Garo. &c. &c.; but the syllable I have marked as a prefix may be the root *a*.)

c. Mon kla, kla-au; An. kau (kla is also "tiger" in Mon., Kambojan, Kasia and Kol). See also Cow *b*. It may have been applied as a general term for quadrupeds like *wol*. In Burman it is sometimes so-use i.

Ugr. koira &c.; Cauc. kari; Arab. gelip; Tigre kulbe; Woloff kaille. Ason.—Pasir kolo; Viti koli; Pol. kuli, guli; Taraw. kiri.

d. Lau ma, An. muong, Car Nic. am.

Sam. pen, buang, ban &c.; Ugr. pon, amba, amp &c. Cauc. pohu po, pah'; Af.—Suah. mbua, Makua, ampuah; Malag. ambua. Ason.—But. abu; Pani apang; Torres St. umai, oma; Taraw mog. (An)

#### 14. Ear.

a. An. tai, tei; M. ha twon; Dhim. nha tong.

Tungus. shen, shun. The same nasal form of the root is found in other Tatar languages, in Semitic and in Tibetan. Af.—Galla uthun, Danak. aite. Ason.—Bin. tang, dang; Sim. anting; Butan titi-luan; Austr. (Wirad.) uta.

b. K. trichi-it.

c. L. hu; Deor. Ch. ya-ku; Kar. naku, Bod. kho-ma, Limbu nekho. Sam. ku, ko; Ost. ko; Korea kui; Ugrian kuma &c.; Drav. kemi, kavi &c. [See Drav.]

d. Kas. skor; S. Tangk. nakor; Garo. machor; Mishmi. nakru.

Yenesai kologan &c. Turk. kuluk, klak &c., Fin korw, Sansk. karnaz. Georg. kuri. Af.—Galla gura, guru; Saum. deygar. Ason.—Torres St., Aust. kura, kure, guri, kowra, gerip, karusa. Aru takar. [See Drav.]

#### 15. Earth.

a. An det; L. prathet; K. deiye; Mon te, tse; Kas., ha kan-deu; Kyen teit; Sinang te'; Kol ot, ote, wathe; Gond otai; Maram ntha; Songpu handi (Kas); Koreng. hudi.

Chin. tho, tei &c.; Aino tui; Korea ta-ti.

b. L. din, nin, phen din. (? a. from the forms in di, or? Drav. nil, nel.)

c. L. muat.g; Abor. among.

Ugr. mua, ma, myo, mag, &c. Cauc. mau.

#### 16. Egg.

a. An. krung; L. khrai, khai; Manip. yerum, haru;? Kas. ha pa-leng; Magar rhu; Silong klo:n;? Male kir-pan.

Korea ar, ol. Ason.—Buner. kurau; Tojo krau (but? from tura Kand., tulu, Komr., atuli Malagasi); Pol. kali (? N. Ultr. koni, As &c.)

b. An. ting (N. Ultr., Chinese; Sansk. dim.)

c. K. pung, M. khapa, Koreng pabum, Murmi, phum, Gurung, phung, Sunw. baphu, Abor-Mir. apu, apiu, rok-pi, ("bird-egg"), Aka papuk, Dophla pupu, Male, kirpan, Kol pitu, pito, bi, bili. The Kol terms are from the Dravirian *vi*tu &c. "seed", the root *vi*, *bi*, being widely spread,—*bichi*, *bihan*, *vili*, *bini* &c. The primary meaning seems to have been "stone",—Samoide pi, pui, pai &c., Bisharye owi, Kamchat. uwatschi, uwatin, weche, Tungus. weche (comp. biji, binji &c. "seed"), Chuk. ui-gam, Koriak wu-gun, and the Indo-European, African and Australian pa-thar, va-tu ba-kir, &c. &c. The Abor-miri pi, piu, pu, appear, like rok "owl" in rok-pi [see "Bird"] to be derived from the Dravirian, which has also the form mu-tu (S. Drav.) The other Gangetico-Ultraindian forms appear, in their turn, to be the modified Abor-Dophla pu, with guttural and nasal finals,—puk, pum, bum, pung.

Lat. ovum, Hind. *baiza*; Arab. *bilka*. *Ason*.—Tarawa bui, Pol foi.

### 17. *Elephant*.

*a.* An. woi; Songpu woi-pong (woi in Songp. is also a prefix in the names for "cow" and "buffaloe") Champ. plo-bi, Luh. *ma-vu*, N. Tungk *ma-phu*, Singph. *moq-wi*, Kyen. nwi, mui, Bodo moi-gedet. [The term is evidently a modification of that for "cow", nwa, wo, pai &c. used also generically for quadrupeds in many of the Ultraindian languages]

*b.* K. *tamrai*, *dumre*, Ka ruai, Chong *kanai*, Kas *ingnar*, Dhimal naria. Tam, dum may be connected with the Tibeto-Ui lang, lam and the be-ram of the Malay Peninsula (Binua, Malay), or it may be merely the def' pref' which sometimes takes a final m euphonicly. The *rai*, *nai*, *re*, is Drav.,—*alia*, Singhal, *ane*, Tamil &c. It is also found in Burm *ane*, *ne*, *nin*, Kyau ni, Kum. *kni*. The Tamil *kaliru* is probably from the Sansk. *karin*.

*c.* Mon sheu, tsin, chuein; Lau tsang, chang, tyang (T U. and Chinese.)

### 18. *Eye*.

*a.* A., Ka, Chong mat, Mon met, *parnot*, mwot; Kas. *ka kamat*; T. U mik &c, Manip mit, *amak* &c, Garo. *makar*, *makron*; Bod. *mogon*, Kiranti mak, Kol met, med, Rakh myat-si.

Chin mok, ma' (=mak), bak, mu. [See Drav]. *Ason*.—The broad form which appears to have prevailed in the Mon-Anam languages, and to have been disseminated eastward (Garo, Kiranti), has a very wide range in Asonesia. In the Nankowry *almat* and in the Simang and Binua mat, met, it preserves the Ultraindian monosyllabic form, but in the harmonic insular languages the common form is mata (Nias to Polynesia). Variations similar to the Continental also occur, e g, baka Tilanj., maka Hawaii.

*b.* K. *pene'* or *penek*, *panek*, Laos *paned*; Nag.—Tengs *tenyk*, Khar. *tenik*, Nag. *tenok*; Abor, Aka nyek, Doph nyuk. These forms are evidently variations of the slender form of the Chin.—Tib.—Ult. root, *a* (Tib mik, Mikir mek, Kol. met, med, Kyau meet).

*c.* Siamese netr.

Pali, Bengali netra, Sansk. netram, netro; Af.—Tumali nget. These forms, as well as ank, ak, ek, kan &c appear to be referable, with *a*. and *b*, to one primary root. The immediate derivation or connection is obscure.

### 19. *Father*.

*a.* A. thei, sha, cha, K. ta, Bin. zaza, Car. Nic. chew. (Drav. *o-chcham*).

Chin. tia; Sam. esya, eche, ese. Jap. Ugr Turk. &c. have similar terms, and it is also Semitic, ais Gara. (comp asio Turk.) In the Sansk. *pi-ta*, (*pi-tr*) &c.), *ma-ta*, and the corresponding *pu-ter*, *ma-ter*, *tu-ther*, *mo-ther* &c, *ta* &c. may be this root, unless it is merely a definitive. The combination is *cythic* &c, bate Perm., (abate Amiaric), abeda Sam, apatsch Kamsch. In the pure dental form, of which the sibilant is simply a variation, it is almost universally distributed [See Drav]. The Turkish and Ugrian *atei* appears to be the closest of the numerous Mid.-Asian forms to the anam. *Ason*.—Bis tatei, totai [These are Ugrian forms, tatei, Wolga; *atei* of Wolga and Turkish is a contraction of this. The full reduplicated form is also found the Fin, *tuata*,

tato, and in the Iranian tata, dada, dad &c]. Rotum. utha, Pol. tua, matua (also "old", "chief" &c. in many Niha-Polynesian vocabularies). Tama, tuama, sama, yama, occurs in Borneon, Celebesian and Polynesian vocabularies. The Mille jima, Tusan tiba, appears to be a variation of it.

b. Au pu, Kamb apuk, Champa pak, (Ka bap). M. bah. hba, Lau po, Kas ukapa, (T. U., but also universally prevalent. The Anam and Lau pu, po, may be ultimately from the Chinese fu, hu, pe, but they seem to be more immediately derived from the Naga-Manipuri forms.)

## 20. Fire.

a. A. lua, lia, K p̄lung, plung, Chong pleu.

Ugr tuli, tol, tul, ule, ulga; Pashtu or. Ason—Erub ura, Rotum. re, Bunerai loh-kapi (a double word); Gorout tulu, Kawi, Krom. lotu, Viti ngatu, Niha alita; Magind. klaiu, Bis kalayo. Bali jini, Sumba jali, North Australian ("hot") ajalji, ojulli, ojena. The Bali appears to be a modification of the Arian agni, agun, &c, and the Sumba and Australian of the Arian jhal, cal, chal, &c, which is also Ugrian, zhar, shal-gim &c.

b. M. ka-miot, ka-met, ta-mat, ta-mot; Car. Nic. tomoi-chu This term is probably of T U origin through the Kumi ma-i, ma-it (the root, common to the T U. and Chinese, being me, mi, fo, fua &c.) Suahili has moto and Malagasi mote. The Bodo wat appears to be a variation of the Mon mat.

c. L. tai, Manip Dialects (throughout) mai. This appears to be also of Kumi origin, ma-i. [For the Asiatic and African affinities see T U] The allied Asonesian terms appear partly to follow the Malagasi (afu, afe) and partly the Manipuri and Kumi. The principal are afu, ate, ape, api, apue, apoi, apui, moi. As the Kumi and Mon both retain the T. U. m, and forms in u are almost absent in Asonesia, (moi Masid, from poi, foi, is an exception), it is probable that the Malagasi form was the origin of all the allied Asonesian ones, and that the Ultraiudian influence on the term was merely phonetic, producing the amplification of the final vowel.

d. Kas ding. This term is peculiar, unless it is a variation of the Kol sing, sing-il (Fire, Sun, Day).

## 21. Fish.

a. A. kha, M., Car Nic, Binua ka.; Kas ka dokha, Mik. ok; Manip. kha, khai, khi, Mish ta, Kol haku. (T. U. nga &c). Ason. Niha—Pol. (com) ika, ikan.

b. K. trau, trei, trai, Ka tre (? Murni tar-nya); b, c and d may all have a common root, 'a, lau &c.

c. Chong mel (Drav. min).

d. L. pla, pa.

Turk palo, balok &c, Jap. awo, iwo. Af.—Mak. apa, Malag. fia, pia, Dari, fun. Ason—Indon. ewa, ibah, ibang, be, bei, ampa, wapi, bau; Pol. malolo, Boni bilei, Dore bille.

## 22. Flower.

a. A. hua (Ch hua).

b. K. pika, M. kao, koung.

c. L. dok-mai, dok, bok, mok, Tib. Him. men-dok.

d. Kas. sintin (sin is probably a prefixed definitive.)

## 23 Foot.

*a.* A chen, kang-shun, K. chong, M. chang, Kar khong, Mrung yakong, Naga *la-thang, ta-tsung*, Bodo atheng, Doingnak teng, Lepcha diarg-liak Lau tin Sim chan. [Tib, kang].

Trav. kal, Chin. kha. *Ason*—Tobi chem. The Lau tin may be connected with the Dravirian adi, Saumali adin, Indonesian and Australian dena, dina, tina &c.

*b* Kas kajat, (prob Drav kazhal &c.)

*Ason*.—Kand. kacha' (= kachak), Pont. kaja, Kayan kasa [See Drav *a.*]

The root common to *a* and *b*, ka, cha &c. has a very wide range, See TIB., DRAV.

## 24 Goat.

*a.* A ye (Chin yeo).

*b.* K. pope, L pe, M Ka bai, Burm. mai, Singph. bai-man, Naga na-bung, Abor sha-ben, Manip. D. ha'men, Mikir be, bi, Manip. D. me, mi, hami, amu.

*Af*—hang mea, Egypt. ba. *Ason*.—Indon. ambe, imbe, be, bebe, bembe, bimi, kabimbi, kambing &c.

*c* Kas. ka blang, Garo purun, Bodo bar-ma, Manip. D. klang, (? Tib. ra, Semitic aron, Africa illa &c)

## 25 Hair.

*a.* A tau', Kar. thu (see *c*)

Chin. thau mo &c, (thau is "head"),

*b.* A long, Kyen lu

Aino ruh, Arm law. *Ason*.—Pagai oli, Ut. uiri, Tar. ira, Pol. lau, ulu (Indon &c, ulu, "head"); Wirad. uran; Kayang inang.

*c* K. sok, M sok, thwot; Binua sok. Probably from the Ultraindo-Himalayan song, som &c. and Tib. sha, which again are connected with the Mongol usun, Turkish asim. *Ason*.—Tobi chim.

*d.* L phom, phrum, Tib pu (a wide spread root).

*e* Kas shuin If sh is part of the root, it is probably a modification of the I. U. othwon, thung, sam &c. If the sibilant is a prefix, the root may be connected with the Naga min, Garo haman, Bodo khomon.

## 26 Hand.

*a.* A. tai Ka dei, M. tai, tway, Kas. ka kti, Bod. akhai, Manip. D. akhui, kuit, khat, Nag tekha, tekhat, dok, Bongju kut, Kyau kuet, Chepang kut-pa, Sunw gur (Manip.) Milch. got, god, Dhim. khur, Kol. thi, tithi, ishini otua Gond kaik, Drav kai,

Ug. ian kat, ket, kez, kata, kede, Turk kol, kul, chol, Mong. gar, char, Tungus gala, sau krit gara, Cauc. kuer, Sindhi kur; Jap te, Sam oda, Ugr. oda. Kashm. athu, Gara. it, Tigre id; *Ason*—Bin. ti, thi (Kas Kol) kokot, kokut (Yuma, Manipuri), Meri ta'akin, Viui thaka Erub tag (Naga tekha, dak.)

*b* L. mu; Kir. moa, Gur moi.

*Ason*.—Sas ama, Samb. Kis ima, Peel R. ma, Trus. bai, pai.

## 27 Head.

*a* A. du, dau (Chin. tau), Ka tuwi (? Chong tos), L ru, ho, hoo, Yuma lu, lu, Manipuri D. lu, olu (The Bodo koro, kharo, Mishmi

*mkoro*, Gur. *kra*, appears to be connected with the Kashmiri *kala* "head", and Tibetan *kra*, "hair". The Simang *kala* is more likely to be a contraction of the Malay *kapala*).

*Af.*—Fazog. *Kau*. *alo*, Agau *our*, Malagasi *loha*, *lua*, [Singhalese *olua*.] *Ason*—Niha—Pol. (com.) *ulu*.

*b.* K. *kabal* (Sansk. *kapala*.)

*c.* M. *kadap*, *ka-touk*, Silong *atak* (T. U.)

*d.* Kas. *ka kli* or *kli* (? *li*, a modification of *lu a.*; ? Dhim. *puring* = *pu-ring*.)

*Ason*.—Ara *guli*.

## 28 Hog.

*a.* A. *heu*, *heo* (? from *hok*, Manip., ? Bodo *yoma*, Dhim. *paya*.)

*b.* K. *chrok*, *cheruk*, Ka *chur*, Chong *charuk*, Mon *klut*, *kaleik*. If the Kambojan forms are distinct from the Mon, they are probably from the Pali *sukra* by inversion (Comp. also the Pashtu *sarkaza*;

*Ason*—Jav. *cheleny*, Viti. *sara*).

*c.* L. *mu* (? Bod. *yoma*), Lepch. *mon*, Sunw. *po*, Singphu *wu*. (Probably a contraction of the T. U. *wak*, *pak*, *vak* &c.)

*d.* Kas. *sniang*.

## 29 Horn.

*a.* A. *sung*, *sing*, K. *suning* (? Kar. *chu-nong*) Kir. *usanga*, Indian *sing*, *shinga* &c. (Sansk. *shringa*.)

*Ason*—Kawi *songo*, Kr. *singat*, Bis. *sungai*.

*b.* M. *kreang*, *greang*, Kas. *ka-reng* (T. U.)

*c.* L. *khau*, Burm. *khyo*, Nag. *po-khye*, Aka *kung*, New *ne-ku* (Chinese *ko* &c.)

## 30 Horse.

*a.* A. *ngua*, *nya*, Bodo *nau*, *na*; Dhim. *onhya*, Lepch. *Limb. on*. Ugr. *lo*, *lu* &c. *Af.* Agau *lu*.

*b.* A. *ma* (Chinese.)

*c.* K. *se*, Kar. *kase*, *kthe*, Kyen *tsa*, Kyo *sha*, Kumi *ktshi*.

Turk. *at*, *ut*, Yenes. *kut*, *kus*.

*d.* M. *kyeh*, *kya*; Burm. *kre*, *krai*, Kas. *kalai*, Bod. *korai* (Ind. *ghora* &c.)

## 31 House.

*a.* A. *na*, *ya*, *dang*, Bod. *na*, Garo *nak* Tibet. *nang*; Kas. *ka ting* Kuki *teng*, Gur. *tin*, Manip. *shin*, *shim* &c. [See T. U.]

*b.* K. *petah*, *tingp. nta*, Dhim. *cha* ( : a.)

*c.* M. *hien*, *he*, L. *reuan*, *heun*, *ren*; i ar. *hi*, Mish. *hon*, Nag. *hum*, *ham* (T. U.)

## 32 Iron.

*a.* A. *sat* (probably from the Chinese *thiat*)

*b.* K. *dik*, *dek*, L. *lik*, *lek*.

Chinese *thi*? (= *thik*), *thiat* &c., *het*, *apan tets*; Semitic *hadid*; *Ason*.—Kayan *titi*, Solor *olokh*.

*c.* Ka *mam*, Chep. *kir. phalum*, Vindy. *marhan*, *merhad* &c.

*Ason*—Aru *omom*, Cer. *mumu*, *moira*, Lobo *mumumur* [See Drav.]

*d.* Chong *rohong*, (See Drav. This form may be from the Bengali and Hindi *loha*.)

*e.* M. *pasoe*, *potnway*, Burm. *sei*, Naga *kache*, *katse* (See T. U.)

Chin. thi, Korea soi, suy, Sam. yese *bese*, *basā*, Sansk. *ayas*, Germ. *eisen*, Lat *æs* (T. U.) *Ason*.—Champa *basai*, Ach. *basue*, Bis. *Pani puthao*, Magind. *putau*; Goront. *buol watai* [Champa *basai*], *Tobi pishu*, N. Cal. *pihisu*, Maori *maitai* [Celebesian *watai*]. The prevalent Indonesian form is the curt *besi*, which is less close to the Mon than the preceding forms, and has thus the appearance of reverting to the Samoiede form *bese* &c.

*f.* Kas. *unar* New. na (? Drav. with the pref. n).

### 33 Leaf.

*a.* A. *la*, M. *kana* (T. U.; Drav; Tib. *lah-va*, Bod. *lai*).

*b.* K. *silok* (? T. U. a; Burm. *rwak*) Binua *loluk*.

*Ason*.—Solor *lolong* (Bin.) [*b* is evidently *a* with a nasal, passing into a guttural, terminal].

*c.* L. *bai*, *mau*, *bou*; Nag. *am*, Kir. *ubava*.

Ugr. *poi*, *wyba* &c., Japan *fa*, Yeniseian, *Yukahiri yipang* &c. (*pa*, *ba*, enters into many other Asiatic terms). *Ason*.—Kis. *awan*, Tarama *ba*, Erub. *papeh*.

### 34 Light.

*a.* A. *raug-sang*, L. *leng*, Burm. *lang*, *len*, Bod. *shrang churang*, Garo *klang*, Nams. Naga *rangro Muth*, Jobok. *rangai* [See "Air", "Sky"].

Turk. *arak* [See "Air", "Sky"] *Ason*.—Indon. com. *trang terang*, &c. Pol. *tua-rama*, *rama*, *lama*, *malama*, Onin, Mille *maram*, (? *Kayan mala*)

*b.* K. *plo*, Gurung *bhla* Kir. *ylava* (? Drav. *Vindy. aveli*, *bela*, &c.; probably the root *a* without the nasal terminal and with the labial prefix) *Ason*.—? *Kayan mala*, Kah. *balawa* (Kirant).

*c.* M. *paviya*; ? Abor. *piuang*, Kar. *kpa*.

*Ason*.—Niha *upi*; ? Paser *piniku*.

*d.* M. *kawa*, L. *sawang*, Kumi *kuwang*, Manip. *wan*, Kapwi *ban*, Koreng *ben*, Champh. *Tangk war* [See "Air", "Sky", "Sun"].

*Ason*.—Lamp. *wawa*, Mandh. *mawajah*, Goront. *mobawanen*.

*e.* Kas. *bashai*, Tangk. *she*, *shea*, Jili *thwe*, Singpho *ningthoi*.

*Ason*.—Mal. Jav. *chaya*, *chahya*, Sim. *chabai*, Bin. *chohoy*, *chaupe*.

### 35 Man.

*a.* A. *ngoe*, Kar. *knya*. (?mi-nyan Nams. Nag; *pano. ano*, "Son," Angam.)

*b.* K. *prus* (Pali *burut*, Beng. *purush*, Chep. *pursi*; a wide spread root; Ugrian *weres*, *pursen*, &c. &c.,

*c.* M. *karu. kru*; Ka *kloe*, Ohong *sam-long*, Kar. *pra*, *kloun*, Kar. *huplong*, Burm. *lu*, (Drav. *alu* &c.)

Chin. *lang*, also Scythico-Drav. and African. [See Drav.]

*Ason*.—(?Syd. *kure*, *Maq. kore*, *Masid garak*. These terms may be modifications of the Indonesian *laki* with the def. pref., but they have also African and Ugrian affinities; See *d.*)

*d.* L. *khon*, *kun* (generic)

Ugr. *kom*, *aika*, *kuian*, *kuil* &c. (root *ku*, *ko*, *ka* probably), Sam. *kum* &c. *Yukahir kun-shi*. *Af.*—Eg. *Dal. Shang. ka*, Yoruba *okhon*, Ful. *kokor Ser. ukor*, Bish. *gul-tuk*, *Shang. gun-za*, *Agau gul-wa*

*Ason*.—Bin. *kan-chu*; Ach. *akam* "husband"; [Timor *atoni*; Pol. *kanaka*, *tangata*, *kane*, *tane*; Mal. &c. *jantan*. But these terms appear to

be derived from a distinct Ultra-indian form.—*u-tanga* "husband" Mikir, diang "man" Dhim &c.; adam &c. Semitic, watau Ugrian]

e. L. pu-chai; Kum. tchiao; N. Tangk. *pasa*, Kas. *penso*, Silong *mesa*; Bodo. bi sbai "husband." Binua "husband" kan chu.

Ugr. choi, chu, enum, Sam. chasa [Aino *chegu*. Chukchi juk, Ugr. *anchuk*, Tib. chok-ton, Tibberk *chagha* "husband", Milch *choung-mi*, Changlo *songo* and other allied Gangetic-Ultra-indian forms, Burm. *youkya* &c. [connected with other wide spread forms in *s, j, y* and *t*.]

*Ason*.—Sulu *usug* (? Nias *ma chua Afr.*)

f. Kas. *man* (New. Kir. *mano*, *maua*, &c. &c.; a very wide spread root.)

### 36 Monkey.

a. A. kih, khi, Kol *gei*, ? gar. *kau-we* (see e.)

Chin. *kau*. *Ason*.—Parig. *uke*, Sumba *kuki*, Kah. *baki*, Banj. *bakue*.

b. A. *wun* (See c, d, e.)

c. K. *sua*; Lumb. *sobab*, Lepch. *saheu*, Abor-M. *sibeh*, *shibeh*; M. *ka nwe*, Nag. *veh*, Aka *labe*, Garo *kouwe*, Singph. *wae*, *we*, Jili *tawe*, (See Tib.)

*Ason*.—Taj. *ebo*, Sul. Tag. *amo*, Magind. *ubel*, *uban*. (Anan *wun*).

d. L. *ling* ("Man", *leng*), Kas. *shri*.

*Ason*.—(? Baj. *siro*, Pas. *siyo* from Kas. *shri*.)

e. L. *wok*, Rakh. *Kapwi myouk*, Burm. *myauk*, Lunke, *Kyen yaung*. The *y* is probably a softening of *r*, in which case the original Burman form would be *mrauk*, with which the Sunwar *moro*, Mishmi *tamm* and Indonesian *brok* are evidently connected.

### 37 Moon.

a. A. *klang*, *blang*, L. *len*, *lun* (T. U.)

b. K. *picban* (Pali Manip. *kachang*, &c.)

c. K. *ke*, Chong *kang*, N. Tangk. *akha*.

*Ason*.—Tobi *makam*, Mang. *ugam*, Tar. *makainga*. Ch. *gue*, Ugr. *ike*, *k'o* &c.

d. K. *ket*, Mon. *katu*, *kattau*, *katok*.

Ch. *gud*,

e. L. *tawan* (? Tib. *dawa*), Kas. *banai* [See "Light," "Fire" "Sun."]

*Ason*.—? Batta *kanawan* (the Lau *kanwan* with the prefix *ka*.)

### 38 Mother.

a. A. L. K. *me*, K. *mi*, Ka. *mai*, Kas. *ka kami*, M. *mi*, *mui*, Binua *mui ambui*, Sim. *ba-ii*, (*i* for *m*) Burm. *ami*, *ame*. (Almost universal in different forms, *ma*, *ba* &c. The form in *u* is Naga *apu*, Manipuri D. *avn*, *ai hu* &c.)

*Ason*.—Sul. *mui*, Mad. *ambo*, Baw. *imbo*, Mal. Jav. &c. *ibu*, Magind. *bahu*, Pol. *fat*.

b. K. *madei*, L. *mada*, *mada* (Pali *menda*, *mata*).

c. Chong *mony* ("father", *kuny*) See a.

### 39 Mountain.

a. A. *nui*, L. *loi*, *noi*, doi. *jai*, Mrung *lai*, (T. U.)

b. K. *pinom*, *pnom*, Ka. *menam*, Chong *nong*, Siwang *minum*, Kar. *koelung*, Manip. *kalong* &c. (connected with a, See T. U.)

*Ason*.—? Mang. *unang*, ? Bis. *tal nan*.

c. M. *tu*, Burm. *taung*, *tong*, Jili *salong*.



Turk. tu, tau, dag &c. (See T. U.)

Ason.—Pol. tua, R. rum. thuang

2. L. phu khao, M. kha (Chin., Yenisei., Sam.)

#### 40 Mouth.

a. A. weng, Ka boar, M. pa. Manip. D. mamun, chamun, mur &c., Limb mura, Lepch. abong; Naga tabang, Abor napang, Simang ban, Bes. pang.

Ason.—Lamp. Korr. bango, Sumbu ubana, Solor wowang, Pol. mangga, Maori mangai, N. Cal. wangai.

b. K. mat, Maram matbu, New. mhutu, Chep. mothong (root su, tho &c. See e)

Ason.—Meri matong, Banj. montong, Bunerati, Viti masu.

c. L. pek (probably from paug, a)

d. Chong. rapeng, Bhum. alang, Kumi p'haung.

Ason.—Mill. langing.

e. Kas. ka shintur, Nag. tun, Garo katong, Kuki taung, Murmi, Gurung sung.

Ugrian sun, shun &c.

#### 41 Mosquito.

a. A. bang, M. pan; Naga mang-dong, Lepch. mang-kong, Male min-ko.

Ch. bang, mang, bun.

b. A. wui, Asam moh (? from a.)

Ason.—Bunerati wai,

c. K. mus, Gond misi, Ur. bhus-endi, Kol bhus-undi, pichu, Karen patso, Binua kamus, New. pati.

Sansk. mashaka, Bengali mosha, Lat. musca &c. The Indonesian *sgas* may be from the Hind. *magas*, and the latter may be an inversion of the Sansk. But the Tamil *kosu*, *kosuvu*, Malayal. *kudu*, Polynesian *kutu*, Indonesian *kutu* ("louse"), throw doubt on this. (See Drav.)

d. L. yung, (probably from sung Ahor &c.)

e. L. phreng, (? Aka tarang, Kumi chang-rang &c. T. U.)

#### 42 Name.

(Not included in my Comp Voc.)

a. A. ten, Kas. ka harteng, ? Kol nutum.

b. L. tsu, chu, Naga achiu, Manip. kazyan, hazyun.

#### 43 Night.

a. A. dem, Lau (Ahom) dam, Binua due.

Turk. ten, tun, tin &c., Koriak ten-kiti; Tungus. dol-boni &c., Yenisei thol, Ugr. oti, at, &c. Ason.—Sulu duun, Buner. tiutu; (? Jav. dalu, Meri dalam).

b. K. juk.

Ugr. jig, jugum, ji, jot, Yenesei shig, sai, &c., Mong. chei, so &c., Aino asi, hin. jit-am, jia.

c. L. khun; Tib. ghanmo (T. U.)

d. Kas. ka miat, ? Manip. mea, maya, Male make.

Sam. pitn, pin, po. &c.; Af. Amb, mata; Ason.—Kis. matang, Sav. meda, Jav. &c. pitang, piting &c.

## 44 Oil.

*a.* A dau, yau; Manip. D than, Bod. than, tau, Kumi atauk; Car. Nic. tavie; Kar tho, tlu.

*Ason*—Samb tura (Kumi); Pol kau, kahu (Bod, Manip.)

*b.* K pring (? Tib *hbru-mar*, Japan *abra*, Pol. *moli*.)

*d.* L nam, man (T. U.,—Tib num &c.)

*e.* Kas. umpeni ang (? Pol pani)

## 45 Plantain.

*a.* A kong-tim

Ch kung-chiau.

*Ason*.—Baw kintang. Mad kidang, Binua kantuk.

*b.* A chui, L kui, kue, klue, kluei If, as is probable, klue be tho original form, it is connected with the T. U. and Indian,—ngola, kala, kela &c., (kala Beng).

*Ason*—Binua kalo, umba kluu, Pamp. galean.

*c.* M'prat (Drav Iran)

## 46 River.

*a.* A som, song, saung; Korong, shinggu, Murmi shiong.

Tib tsang (See T. U.); *Ason*.—Indon. com. (See T. U)

*b.* K tun-li, Ka dak-tani, Chong tale, Manip. D. tulih, tula, tu, Garz Nic. tohil, Singph. talau.

Turk. dara, idel, od-l, Yeniz. tom, tatang, Sam. to-a, to, Drav. tani.

*c.* K. prek, Rakh. mrik, mriet, Kyen lik, Sunw. liku.

Turk. elga, yelga, Sam. urga-hu, Fin wirta, Tungus. bir. (The Selythic root is *el, ur* &c "water." *ga, tu w, b.* are definitives.) *Af.* Galla lega (Turk.); *Ason*.—Pamp. ilug, Tag. ilog (Turk.), Meri leko.

## 47 Salt.

*a.* A. moe, man, M. bu, bho (Drav. upu &c.)

*b.* A yen (Chin)

*c.* K. ambil, Kas *ka mluh*; Kumi *ma-lwe*, *pa-loi*, Kar. htla, Aka alla, Abor alo, Mishmi plah, Kol bulang

Hind. milh, Arab milch, Mahrah malhut, Bish miluk, Egypt. mrh, Pashtu malga

*d.* L. kleua, klu, ka, keu, kem; probably lu, leua, (*c*) with the guttural pref.

## 48 Skin.

*a.* A. jia, ya, sha, Milch. sha, Limb. saho, New, yu, I urm. thaya; Ugr. sou, such.

*b.* K. sibek, (T. U. Kumi apik, Singp. *mophik* &c.)

*c.* L. nang

Fin nagka, nakke &c, Tungus. nanda.

*d.* Kar. *ka snep*, Garo *ho-lop*.

## 49 Sky.

*a.* A bloei (M. "air"); Chong pleng; Mishmi brra, Car. Nic. fura; Ugr. pil, Turk. pielts (See "Air" *d*)

*b.* A. tung-tien, Khoib thang-wan, Kapwi tang-ban, Nag. rang-tuug, Abor. te-ong, Manip. D. tiugem. hazing &c. Gurung tun "

Ch. tien, Jap. ten, Mongol, Turk. tenyri, tenyri, tengri &c.

- c* K. me', mek, A mei, Burm. magh, mo, Kar. mukho, Murmimu, Gur. mun (Drav.)  
*d*. K. kor, Ka krem, Sim. kael,  
 Sam. kuilah, Kamch. kolla Ason.—Solor kelam.  
*e*. M tudeah (?Gur. tundi)  
 Ason—? Parigi todong (? udong, "covering")  
*f*. L. fa, Lungke wan, Khoib. thang-wan, Kapwi tang-ban, Aka aupa. (Drav. For the Asonian affinities see Drav.)

## 50 Snake

- a*. A. ran, Lungke rul, M. sum-prum (T. U.)  
*b*. K. pos, Kas. ka baseir ? (the ? is Mr. Robinson's); Sunw. busa (T. U.)  
*c*. M. thaom, sum-prum, Kir. pacham Mamp ham-pu, hom-pwi, hum-ur. (prum is *a* and T. U., prum Maring &c. &c.)  
*d*. L. ngu.

## 51 Star.

- a*. A. ting-to, Naga pethi, lethi &c.  
 Mong odo &c., Ugr. teti &c. *Af.*—Galla tuwi; *Asones.*—tu.  
*b*. A. sau, Kar. sa, Khyeng ashe.  
 Ug. sou, Ch. ch'he, se &c Ason.—Tobi aish (Khyeng.)  
*c*. K. pikei; Burm. kre, kye, (T. U.)  
*d* M nong, hnong, nyoh, L. nau, lau, dau, Burm. minong, ? New. naga (See *a*)  
 Mong. odor  
*e*. Kas. uklur (? *d*. with the *k* pref., or from the Tib. kase, &c.)

## 52 Stone.

- a*. A. da (T. U. do &c.)  
*b*. K. timo, tamo, Ka tamoe, Chong tamok, M. ka-mok, kha-mouk, Ason.—Pagai buku, Pamp buga, Pol unaku, kamaka (Mon.)  
*c*. L. hin (probably from the Gangetico-Ultratindian terms in *l*, *r*, the Lau, like the Anam, sometimes converting *r* into *h*.)  
*d*. Kas. man, (? Naga, Maniq. rung, nang &c.)

## 53 Sun.

- a*. A. nhit, nhot, nyat (T. U.; Ason.—Iloko inity)  
*b*. K. tingai, tangai, Ka. Ch. tangai, M. nuu. tangwe, Koreng tingnai mik, (i e *Day's* or *Sky's Eye*), Naga ting-lu (See "Sky", *b*.)  
*c*. L. wan, ban, Naga wang-hi (See "Sky" *f*)

## 54 Tiger.

- a*. A. ho (Chin.)  
*b*. A. ongkop?  
*c*. K. kila, M. kla, kyu, Burm. kya, Kas. u kla, Dhim khuma, Kol kula; Changlo kaila.  
*d*. Ka dea, de (? Tib. ta), Simang taiyo.  
*e* L. sua, seu, su, Naga sa, Jili kasa, Deor Ch. masa, Garo matsa, Bod. mocha, Chep. ja, Murm. chyan, Gur. chen. (Tib. chan &c.) Simang chiai A. Ch. ho.  
 Ason.—machang, maeha, masa (See T. U.)

55 *Tooth.*

*a.* A rang, nan-rang; N. Tangk. alara, Binua rangam, didara; Mishm. la.

Iran. danta, dara, dar &c. *Ason*.—Austral. danga, irang &c.

*b.* K. timbang, L. (iam) fan, Singph. wa, Garo pha tong, Burm., Murmi swa, Nag. va, wa, ha, Abor ipang, Himal. wa, apho &c., Milch. bung.

Jap. fa, Ugr. pane, pin, ponk, pankt; Drav. palk, pal &c. *Ason*.—Indon. com. ipang (Abor), ampon, ngipan &c. &c.

*c.* M. ngeok, ngeat, Kas. baniat.

*Ason*—Savu ngutu.

*d.* L. khiau khia, Burm. kya Khyeng kye, Sunw. krya.

Ch. khi.

56 *Tree.*

*a.* A kai, gokei, Manip. akoi, im. kuing.

*Ason*—Aru kaai, Tarawa kai, Bis. kahoy, Malay &c. kaya.

*b.* K. chu (Chin. che, chiu, shu.)

*c.* M. ka-uon, ku-uom.

Korea nemo.

*d.* L. ton, tun, Kas. ka diing, (T-Him. dong &c., Khoibu hing-tong.)

57 *Village.*

*a.* A. lang, Kas. ka shnong, thong, Mik. rong, Khyeng nang, Singph. mereng, Manip. D. ram, nam, rahang &c., Abor duiong, Magar langha.

*b.* L. ban, man, Limb. bangkhe.

58 *Water.*

*a.* A nuk, Ka dak, Chong tak, K. tag, tak, tik, M. dat, dai, Nan-cow. rak.

Yenesei dok &c., Bengali udak (Iranian), Fin tat se. *Ason*.—Tobi tat (Fin).

*b.* M dai. If this is not a contraction of dat, it is connected with the Tibetan and Gangetic-Ultr. doi, tui &c., Chinese chu &c.

*d.* L. nam; Chep. lang, New. la, lau. (root Scythic; Afr.—Malag. ra, Haus. rua &c.)

*e.* Kas. ka uu, Ur. um, Male am, Lepcha ong.

Scythic Kor. Tungus mu &c.); Semitico-Afr. com.

59 *Yam.*

*a.* A. kwei (? Limbu khe).

*b.* L. man, man-dom, hoa-man,

## APPENDIX TO CHAP. VI. OF PART II.

## C.

COMPARATIVE VOCABULARY OF CHINESE AND TIBETO-  
ULTRAINDIAN NUMERALS.\*

\* In App. C. the roots and not the adjuncts are italicised.

## One.

Chin *chit, yit, it, i', che, ja'* \*; Tib. w. *gchig, s. chik*; Himalayan *chi, ghrik, kih, tik, kri, it, id, che; kat, ka*; Dophla *aken* &c.; Bodo *che*, Garo *sha*, Burman *ta-ik, tach, tit, te', ta*, Karen *ta-ple*, Bong. *ka-kar*, Kuki *keaka*, Khyeng *pa-hat*, Nicobar *kohok*, Naga *van-the, katang, katu, akhet, atta, cha* &c., Miri *ako* 'With the Chino-Tibetan and Burma-Himalayan compare Ugro-African varieties of the root, —fito Japan, *ytyk, odik, it, ot* Ugrian; *dik* Darfur *tok* Galla. It is difficult to trace the particular connections amongst these forms. The Ugro-African, Chinese, Tibetan and Himalayan are obviously variations of one root, which is probably best preserved in the full bi-consonantal forms *tik, dik, chit, chik*, which are found in all the provinces. But the centres and lines of diffusion are obscure. The African terms are probably of Scythic origin, like many other African numerals. Some of the Himalayan and Ultraindian forms may also be Scythic through eastern Tibetan, although it is quite possible that they are variations of the proper Tibetan forms. The Ultraindian and Himalayan forms in *a* are so peculiar, that doubt may arise whether they are all Tibeto-Chinese. *Ta, ka* may be a variation of *cha*, and *cha* itself of *chi*, but the prevalence of *ta, ka* as an Ultraindian and Asonesian definitive, and its occurrence in many of the Asonesian vocabularies as the numeral "one," suggests the possibility of a different origin. The Burman *tach, taik, 1, nhach, naik, 2, Naga not 2*, appear to be only vocalic modifications of *tik*, and of *nit* (or *nis*) 2. It is probable that the shorter forms in *a* are modifications of a similar Ultraindian variety of the Tibeto-Chinese root. The Naga *katu, katang* [*kat*-in higher numbers], *akhet*, [whence the Dophla *aken*] and the Khyeng *hat*, are probably merely an inversion of an ancient *tak* (Burman *tach*) † This form spread to the Himalayas (Lepcha, Mugar *kat*, Sunwar *ka*, obviously referable to the Naga forms) The vocalic form *ta* is found in spoken Burman, Karen, and some of the Naga dialects, *ata* (Mithan) [whence *cha* Tablung, *sha* Garo, Deoria Chutia], in Abor-Miri *ako*, and in Sunw *ka* † In the Yuma group, in which the dental is replaced by the guttural, as in several

\* I may remind the reader that the apostrophe marks the abrupt sound equivalent to a suppressed or inchoate *k* or *t*, so that *i'* is a modification of *ik, it*, and *ja'* of *jak* or *jut*.

† [Mr. Hodgson's vocabulary of Gyarung, published since this paper was written, shows that these forms have not been produced by inversion, but by the cohesion of a common Ultraindian prefix *ku* (corresponding with the Ancient Tibetan *g-*) and the broad variety of the Chino-Tibetan root. Gyarung has *k-ti, (ti* also found in Takpa, *thi*, a Burma-Himalayan variety contracted from *tik*), *ka-ies 2, ka-sam 3* &c. These forms, whatever their immediate origin and most direct affinities, correspond with the Tibetan *g-chhig = k-chik, k-uk, k-ti. g-nyis 2* &c. In many of the Himalyo-Ultraindian numeral systems, *ka-, ta-*, is retained in terms above 6, in a few it occurs in the lower terms as a pos. nx. See App. A. p. 3, "Seven"].

‡ [Also in Manyak *tu-bi*]

Himalayan forms), it takes the postfix *ka*,—*ka-kar* Bongju, *kea-ka* Kuki (whence, probably, the Nicobar *kohok*). This tends to involve the Tibeto-Chinese origin of the final *ch* or *k* of Burman in some doubt, but as it is referable in other terms to Tibeto-Chinese or Tibetan, it may be considered as certain that a broad form (*tak* or *kak*, by contraction *ta*, *ka*, &c.) anciently prevailed amongst the North Ultraindian languages and was thence carried along the Himalayas. Amongst the Himalayan languages the Newar *chhi* is the only term for 1 that is modern Tibetan (Lhop. *chi* Tib. *chik*.) The Murmi *ghrik* is a derivative from the Ancient Tib. *gchik*, which, we may infer, had a very strong or guttural sound from which the Murmi *r* was evolved. The Gurung *kri* is a modification of the same form.

The term is radically the same as the definite article and unit of many Scythic, Ario-Celtic, African and Asonesian languages, *ta*, *ti* &c., *ko*, *ka*, *ek* &c.

The Karen *läng* is Lau (*nung*, *ning*). It has remote affinities, North and Mid Asiatic, Dravirian &c. (e. g. *annon* Koriak, *onna* Drav., *eng* Car Nicob., *ngun*-bai Austral. &c.). But as the same particle is a widely spread definitive, it is probably of native origin in the Lau system (*ni* "this", *nan* "that", Siam. &c.)

## Two.

Chin. *urh*, *ir*, *il*, *ü*, *no*, *ji*, *gi*; Tib. *gnjis*, *nyi*, *ni*, Him. *nyi*, *ni*, *nhe*, *netchi*, *nis* &c., Miri, Daphla *ant* (Naga), Mik. *hini*, Burm. *na-ik*, *nhach*, *ne*, *nhit*, Nicob *net*, Naga *ani*, *yi*, *ne* &c., Khyeng *pa-nhi*, Kar. *khi-bo*, *hi-ple*, Singpho *nhkong*\*

The Chinese appears to have two distinct forms or perhaps roots, and both are found in Ultraindia. The Kwan-Hwa *urh*, *li*, is the prevalent extra-Chinese form, *nyi*, *ni* &c. The Macao and Hokien *gi*, *ji*, is perhaps connected with the Karen *hi*, *khi*, but it is more probable that both have been formed independently from guttural forms of *ni* (*nhü*, *ngi*, *gi*, *ji*). The final *s* of the ancient or written Tibetan is the parent of the final *s*, *t* of some of the Himalayan dialects, *nis*, Mag., *nishi* Sunw., *netchi* or *nyet-sh* Limb., *nyet* Lepch. So *amat* Tengsa (Naga). In the other Naga dialects the final consonant is lost in 2, but it is preserved in 7 *ingit*, *anath*, *nith*, *tauet* &c. The Burman *nhit*, *nek*, *nhék* or *nhach* retain it. The Burman *nek*, Nicobar and Naga *net*, *ne*, appear to be connected with the Limbu and Lepcha *nyet*.†

The Chinese term or terms for 2 have no apparent connection with the N. and M. Asian ones, unless *urh* be contained in the Tungusian *yur*, Mongol *cho-yur*. But the root in *r*, *l*, *n*, *d* is the most common Aso-African term for 2. Its forms in other formations are frequently identical with the Chinese. In Africa it and the labial *ba*, *ma* &c., separately or combined, are almost universal, and as most of the African and Asiatic systems have an ultimate binary basis, the same roots enter largely into the names of higher numbers also. The Iranian *dwa* combines both, as in some of the allied E. African terms. Both are found separately and combined in the Mon-Anam terms, *bar*, *ar*, *ma*, *ba*, &c., and *r* alone is the earlier Dravirian term, *ir*, *er*, *re*, which closely resembles the N. Chinese *ir* as well as the Georgian *yeru*, *ori* &c. As *ir* &c. ap-

\* [With the Burman broad form, amplified by the postfixed def. *na-ik*, corresponds the Gyarung *na-i*, Manyak *na-bi*, Thochu *nga-ri*. The Gyami *liang-ku* and *ar* are pure Chinese varieties; the *ü* euphonically amplified by the nasal final.]

† [Gyarung *ka-nes*, Florpa *nge*.]

pears isolated in the Chinese system, and is not even a Chinese definitive, it was probably borrowed by the original Chinese tribe, directly or intermediately, from a formation in which the two definitives "this", "that" had become the foundation of a binary numeral system,—*ir*, *ra* &c. "that." The best representatives of this primitive As-African system must be sought in those languages in which *ra*, *ir* &c. still exists as a definitive and may be traced in the numeral 2 and in higher terms formed from it. The particle is so freely varied in other alliances by the consonant changing to *n*, *d*, *t* &c. that there is no reason to suppose that the Tibeto-Ultraindian forms *nyi*, *ni* &c. have not been borrowed from the Chinese. But closer forms are found in Yeniseian, *ine*, *inya*, *hineang* (Kasia *hini*), and other languages.

### Three.

Ch. *san*, *sam*, *sa*, *ta*; Tib *gsum*, *sum*; Him. *sum*, *som*, *song*, *sam* &c., Miri *a-on-ko*, *auma*; Dhim. *sum-long*, Bod *man-tham*, Garo *ga-tham*, *atham*, Kar. *the*, *sa*, Mik *kathom*, Nag *asan*, *azum*, *she*, *su*; Lem. *van-ram*, Burm *sung*, *thong*, *song*, Khyeng *pathong*, Bongj *tumkar*, Kuki *tumka*. Lau *sum*.\*

The peculiar Naga form *ram*, *lem*, is found in the Milchanang 13, *orum*, although 3 itself has the Tibetan form *sum*, and is also preserved in the Tibberkad *sa-kum*, *chop-sum*. [See Ap. A.]

The closest foreign affinities are Korean and Caucasian. Kor. *sai*, Georgian *sami*, *sumi* &c., Lesgi *shamba*. The same combination has been carried to Africa *saba*, *sauwa* &c., Mandingo group. In the Caucasian systems the numeral terms are regularly formed from a few definitives by flexion and the coincidence of the Georgian *ori* 2, *sumi* 3, with the Chinese *ir* 2, *sam* 3, Tib. *sum* 3, can hardly be accidental.

### Four.

Ch. *se*, *si*, *ti*; Lau *si*; Tib. *bzhi*, *zhys*, *zhi*, Lhop. *zhi*, Serp. *zhyi*. This term, in its dental and sibilant forms, has made little progress in Ultraindia. Nangaung Naga has *pa*, Angami Naga *da*, M. Angami *deh*, Kuki *ta*, Bodo *dia*, which appear to be all modifications of the Tibetan forms of Chino-Tibetan.†

*Si*, *ti*, is a very common definitive, and much used as a numeral element. It is found as such in Scythic and African languages (e. g. *teti*, Samoide). But as the Chinese 2 and 3 are most closely connected with Caucasian, and *chi*, *thi*, *se* &c. is the principal element in its flexional series of numerals, it is probable that the Chinese is related to the Georgian *oth-chi*, *ot-chi* &c., to which also may be traced the African *ata-chi* (Timbuktu.)

The most common term in the Tibeto-Ultraindian languages requires, from its peculiar form, to be separately discussed. It has been carried by the North Ultraindian tribes to the Himalayas, where it has Naga, Garo and Burman forms. Burm. *le*, Bongj. *lekar*, Khyeng *lhi*, Kar. *li* Naga *phali*, *phale*, *belli*, *pilli*, ali- Singphu *meli*, Mikir *phali*, Garo *bri*, Bodo *bre*; Himalayan,—*apli* Daphla, *plei* Chepang; *le* Sanw. (Burm.), *li sh* Limb. *phali*, *phulut* Lepch., *buli* Mag., *bli* Murmi; *pli*, Gur; *laya* Kiranti.

\* [Thochu *kshiri*, Gyami *sangku*, *sun*, Gyarung *ksam*, Hampa *su* (T. Naga), Takpa *sum*, Manyak *si* (Thochu *shi*, Nag. *she*, Kar. *tie*)].

† [Thochu *gzhare*, Gyami *si*, *siku*, Gyarung *kadi* (Bodo), Horpa *la*, Takpa *pli*, Manyak *rebi* (Burm. Him.)]

These are all North Ultraindian forms. Pi, Newar, Tiberkad, is identical with the Abor-Miri *apiko*, *apie*, which is a contraction of *apliho*, as appears from the Daphla form *apli*, and from Abor-Miri itself preserving the full Naga form in *pili-ngo-ko*, 6. The Milchanang pu, *puh* is probably a modification of pi, corresponding with bu in the Magar *buli*. This is more probable than that it is a direct derivative from the Mon-Anam and Vindyan pun. But pun may itself be related to the Burma-Himalayan terms. The latter, in some of their forms, are identical with certain forms of the African numeral which appears to have been the original of the Mon-Anam, Malagasi and Asonesian terms. As that numeral is itself founded on a root for 2, —li, ni, lu, nu &c., which is common to Chinese with many Asiatic and African languages, and as the term for 4 so formed had a very archaic and extensive prevalence in Asia and Africa, there are several possible sources of the Burma-Himalayan term. The simple forms le, li &c. are identical with the Chinese li, 2, of which the Tibetan and Ultraindian nyi, ni &c. is a slight modification. Li may therefore be a derivative from an east Tibetan dialect, or it may have been formed in Ultraindia from the Chinese li or the Tibeto Ultraindian ni. But it is improbable that such a term for 4, or mode of forming 4, prevailed in eastern Tibet, when the Chino-Tibetan system has a distinct term for 4. It is equally improbable that the principle of constructing such a term was acquired in Ultraindia after the Chino-Tibetan system was introduced, and was then applied to the invention of a new term for 4 which displaced the proper one of that system. The simplest conclusion is that li is a modification of the Chinese ti, si, through the sonant form, of which we have an example in the Bodo *dia*, whence the Angami-Naga *da* &c. The Tibetan sonant *bzhi* is probably the immediate parent both of the sonant dental forms and of the labial prefix (*bazi*, *badi*, *bali* &c.).

### Five.

Ch. *ngu*, *u*, *ing*, *ngo*, *go*; Tib *hna*, *gna*; Him. *gna*, *gua*; Miri *angoko*, *ungo*, *pilingoko* (*pili*, 4, Naga); Dhim. *na*, Mik. *phong*; Naga *nga*, *aga*, *bang*, *phungu*, *pungu*, *phanga*, *pangu* (the Bodo *ba*, *bha* is probably a contraction of the Namsang *bang*); Singh. *manga*, Burm. *nga*, *na*, Kar. *yai*, *ye*, Khy. *nhan*, [Nic. *tunhie*, *tuni*]\*; Kuki *nga*, Bong. *raingakar*.† The Karen *yai* is exceptional. It appears to be Dravirian (*yai*, Toda, *aji-du* Telug. *ayi-nu* Tul &c.)

The Chino-Tibetan nasal root itself, *ngu*, *ing*, *nga*, *na* &c. is allied to the Dravirian *an*.

### Six.

Ch. *lo'*, *la'*, *lu'*, (i. e. equivalent to *lok*, *lak*, *luk*); Tib w. *druk*, s. *thu* W. Tib. *duk*, *tuk*; dhu Lhop., *tuk* Serp.; Him.—*dhu*, *tu*, *khu*, *tuk*; Lep. *tarok*, *trok*, Sunw. *ruk*; Chep *kruk*, Bodo *do*, *ro*, Dhim. *tu*, Garo *krok*, *dok* (Chepang), Mikir *thorok*, Naga *tarok*, *thok*, *arak*, *irok*, *soru*, *azok*, *vok*, Singh. *ku*, Burm. *khrauk*, *khayok*, *khayuk*, Bougi. *rhukar*, Mon *karau*, Ka *trau*. Changl. *khung*, Abor-Miri *akye*, *akengko*, Kuki. Kar. *ku*.‡ The distribution of these terms is peculiar. The wide

\* Probably Mon-Anam. See App. A.

† [Thochu *ware*, Gyami *wu*, *wu* (i. h. n) Gyar. *kungno*, Horpa *gwe* (Chin. *go*), Takpa *li-gne* (i 4, as in M ri), Manyak *gnabi*.]

‡ [Gyami *leu*, *leuku*, Gyar. *lutok* (lib), Takpa *kro* (Singpho, Garo, Chep), Manyak *trubi*.]



spread *khrauk*, *kruk*, *karau*, *trau* &c is evidently an archaic East Tibetan form of the Chinese *lu'* or *luk*, allied to the Written Tibetan *druk*. Its diffusion amongst languages of the Mon-Anam formation is probably attributable to the numeral system of the latter having been purely quinary, or without any substantive term above that for 5. It is found in Kol and Gond also. The Naga *tarok* might be thought to be an immediate derivative from the Tibetan *druk*, if *ta* did not occur frequently as a prefix with other numerals and words, and the numeral root, *ruk*, *rok*, *lok*, occur bare and with distinct prefixes in other Naga dialects. The Garo *krok* and Chepang *kruk* are obviously derivatives from the Burman *khrauk* and although the Lepcha *tarok*, *trok*, resembles the Tibetan *druk*, I have no doubt—looking to the cumulative evidence of the influence of Ultraindian forms of numerals and other words on the Himalayan—that it is a derivative of the Ultraindian *tarok* (Nagaung Naga.)

The Karen and Kuki *ku*, Dhimal *tu*, Bodo *do*, *to*, Naga *so-ru*, Bongo *rhu-kar* appear to be contracted forms, which in Changlo and Abor-Miri take a nasal final *khung*, *keng*. The Abor *a-kye* and Dophla *a-k-ple* present it in a very curt form, and the latter curiously preserves the Karen postfix *ple*.

### Seven.

Ch. *chhi*, *ch'hit*, *ch'het*, *thet*, *sit*; Lau *chet*, *chiat*, *tset*, Singph. *sinit*, Kyen *shi*.

The allied Ultraindian and Himalayan terms are remarkable. The Mon-Anam or earlier Ultraindian system was quinary, and a like system is still seen in the Burma-Himalayan terms for 7, which are simply the term for 2 sometimes slightly modified. It was doubtless formed on the model of an ancient quinary term, 5-2, the term for 5 having been lost. The circumstance of the root for 5 not being found accompanying that for 2 in any of the languages, is a strong proof that the prevalent Burma-Himalayan numerals were derived from one language which had dropped the term for 5 before it became diffusive. The Tibetan term is *bdun*, *dun*. It has made hardly any progress on this side of the Himalayas, the only examples I find being the Lhopa *dun*, Serpa *dyun* and Changlo *zum*, a modification of the Lhopa *dum*. The Tibetan term is not Chinese, but it is Tungusian *nadan*, Mong *dolon*,\* Korea *iitun*, and it enters into the Kamchatkan *nytonok* &c.

The following are some of the Burma-Himalayan terms. Burm. *khwan nach* or *nak*, *khunhit*, *kuni*, Abor, *kunil-ko* Miri *kunide*, Nag. *tanet*, *nith*, *anath*, *ingit* &c. Singph. *sinit*, Garo *sining. snit*, Bodo *chini. sui*, Dhim *nhi*: Kar *nui*, *nwi. nis*, Chant, *nhe*, *noshi*, Kuki *s. sri* [Garo *sni*], Bongj. *sre-kar*, Kasia *hinian* (*hini* is 2 in Mikir). The Abor-Miri *ku-nit-ko*, *ku-nid-e*, is directly connected with the Burman *khun-nhit*.† The Dophla *ka-nag* is the same word with the final *t* of 2 converted into a guttural, as in the ancient Burman *nak*, *nach* &c. The Kiranti *bhag-ya* alone preserves the proper term of the Mon-Anam system. Comp. Mon *ka-bok* (from *bo*, 2). The prefix *ka* is found in Lepcha from 7 to 10, but the term for 7, *kyok*, is peculiar.

\* [Sokpo tolo].

† [Gyarung *kush-nes*, Takpa *nis*].

*Eight.*

Ch. *pat*, *pe'*, *boi'*, *poi'*. This term has not been borrowed by the Tibeto-Ultraindian languages. It is found in Lau, *pet*.

The Tibetan term is *brgyud w. gye s*.\* The ancient form (probably still prevalent in E. Tibet) requires to be compared with the Ultraindian and Himalayan terms in which *r* is the consonant. The Kasia *prah*, if it stood alone, might seem to be a contraction of an ancient Tibeto-Ultraindian form which preserved the Tibetan prefixual *br*. But as the Kasia term for 2 is *ar* (Mon, Kol, Chong, *mar*, *bar* &c.) it is more probable that *prah* is formed from it. In many systems primarily based on a binary scale, 4 and 8 are modifications of 2. From the Kasia form comes the Nicobari *awera*. The other allied forms lose the *p*. They are *rach* Burm. w., *rai*-kar Bongju, *rae* Kuki, *rai*, *rhai* Milchanang. But some doubt is thrown on *rai* by the Tibberkad *ghai*, the Tibetan form *ghoh* being also found in Tibberkad. Final *i* is affected by these extreme Western languages of the Gangetic formation as well as by some of the extreme Eastern (e. g. Bodo) which have received it from Ultraindia (Karen &c.) Thus 5 is *gnai* (Tib *gna*), 6 is *tuki* (Tib w. *tuk*), 9 is *gui* (Tib *gu*). Final *i* being common to Milchanang and Bodo, the Bongju and Kuki *rai*, *rae* are in favour of *rai* having been the form of the Kasia *ar*, *ra*, 2, that prevailed in Bodo and the other Gangetic languages and was spread as far west as Kanawar. The common interchange of *r* and *g* or *gh* would of course explain the conversion of the Tibetan *ghe* into *re* as well as the Ultraindian *ra* into *gha*, the vowel being a small element in favour of Ultraindian origin. The point however is, I think, settled, 1st, by the evidence in favour of an early diffusion of Ultraindian words up the Gangetic basin and across the watershed into that of the Sutledge, and against any early diffusion of Tibetan words from the Sutledge down the Gangetic basin; and 2nd by the Kasian form *prah* being found in the Chepang *prap*, Gurung *pre*, Murmi *preh*, *pre*. The Kiranti *reya* gives us the root again. The forms in *pr* are connected not only with the Mon-Anam term for 2, but with the prevalent Burmah-Himalayan terms for 4, *pali*, *pli*. In several of the languages 8 appears as a mere flexion of 4 (i. e. 4 dual). Gurung 4 *pli*, 8 *pre*. In the Abor-Miri *pu-nit*-ko, Abor *pi-nye*, the labial is the term for 4, (*a-pi*-ko, *pu*, *bu*, Nipal, Milchanang, combined with that for 2 (i. e. 4 the 2nd time or twice). In the Daphla *plagnag* the same combination is found (See 2, 4 and 7).

The common N. Ultraindian term is a similar binary remnant. Burm., *shit*, *shyit*, *si'*, Khyeng *shat*, Naga *isat*, *acheth*, *achat*, *sachet*, *te*, thesep, *thuth*, *thetha*; Singph. *matsat*, *makat*, Garo *chet*, Bodo *jat*.† All these appear to be modifications of a term preserved in the Kiranti *hasat*, 2, and having affinities with some N. Asiatic binary terms for 8, i. e. Samoiede *shit*-sedi, *siti*-wieta, Tungusian *dschap*-kun. The root is primarily 2,—Samoiede *shit*, *site*, *side* &c., Ugrian *kit*, *ket*, *kat*, *kak* &c. &c. and may be recognised in the Chino-Tibetan *si*, *ti*, *zhi* &c. 4 (i. e. 2 dual).

The Limbu *yet*, Sunw. *yoh*, Dhimal *ye*, are probably Tibetan (*gye*). The Lepcha *ka-keu*, *kuku* is probably an ancient term formed from the

\* [*gyarung oryet*, Takpa *gyet*.]

† [*Manyak zibi*].

W. Tibetan *gyd* &c. The Karen *hkgo*, *kho*, is allied to it.

### Nine.

Ch. *kiu*, *kau*; Tib. *dgu*, *guh*, *gu*, Him. *gu* &c.; Ultraindian *ku*, *ko*, *kho* (with prefixes &c. in some dialects), Singpho. *tseku*, Himal. *ku*, *kuh*, Changlo *taku* (Naga), Bodo *chku*, Gar. *ju*, *shku* Milchanaug *sgoi*; Lau *kau*, Karen *kui* (Chinese).\*

### Ten.

Ch. *shi'*, *ship*, *chap*, *tap*; Tib. *bchu*, *chuh*, *chu*; Him. *chuh*, *chui* (Tiberk); Ultraindian, — *shi*, *chi*, *che*, *si*, *tsi*, *se* Burman, Karen, Naga &c., Garo *chi*, Bod. *ji*. The Ultraindian is closer to the Chinese than to the Tibetan form, and it has been carried westward into the Himalayan dialects, *chi-mai*, *sa nho*, *thi bong*, *ss*. The term is evidently the Chinese-Tibetan root for 1, *chit*, *chik*, *chi* &c. a mode of naming 10 (1 tale) found in many other languages. That the Ultraindian and Himalayan forms have been derived from Chinese, or from an eastern Tibetan vocabulary, is further shewn by the Mikir *kep*, Kiranti *kip*, which is the Chinese *chip*. The Burman *ti-che*, Rakhoning *ta-se*, prefix the term for 1 without its guttural final. †

In the Chinese system the numbers between 10 and 20 are formed by placing the lower numbers after the word for 10, while the articulate terms or *tens* are formed by placing the lower numbers before the word for 10, which precisely accords in principle with the Hindu, Arabic and European notation, although not with the nomenclature in the series between 10 and 20 (e. g. 13 corresponds with the Chinese naming, but not with ours which places the digit before the ten, *thir-teen*; but *thir-ty*, *thirty-one* &c. correspond with the notation, 30,31). The following examples will show the consistency of the Chinese notation with the collocation of the words, *chap* 10, *chap it* 11, *chap ji* 12, *chap see* 13; *ji chap* 20 (2,10), *sa chap* 30 (3,10) ‡

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\* [Gyarung *kunggu*, Takpa *dugu*, (Tib). Manyak *gubi*, Horpa *go*, Thochu *rgure*.]

† [Gyarung *si'*, Manyak *chechibi*, Takpa *pchi*.]

‡ *Note on the Chinese and Indo-Arabic numeral symbols.*

Names of numbers must have preceded *symbols*, and the Indian symbols must have been invented by a nation which followed the Chinese system of naming, that is such a term as *thir-teen*, *trayo-dashan*, *te-rah* could not have been used by it. The Dravirian and Mon-Anam systems agree with the Chinese in placing the decimal in its natural place. e. g. 11, *pali nunu* (10,1) in Tamil; *gel miad* (10,1) in Kol; *moi mot* (10,1) in Mon; *kad wei* (10,1) in Kasia. That this system is the natural one is proved by its prevalence in other languages, American, Asiatic (Seythic, Georgian, Euskarian &c.), and African. The Indo-European and Semitic collocation is exceptional.

The perfecting of the decimal notation must have been a slow process, and may have been the work of the civilised Dravirians or other pre-Arian nations of India. But the Chinese had advanced far in this direction, and there are sound grounds for attributing the rudiments not only of the system, but of the symbols also, to them. The Chinese symbols for the three lowest numbers are respectively 1, 2 and 3 strokes,

placed horizontally in the formal, and vertically in the common, notation. The Indian and Arabic figures—the originals of the European—are obviously cursive or connected forms of similar symbols, and it is curious that in the Indian—from which the Arabic are supposed to have been derived—the strokes are horizontal, while in the Arabic they are vertical, from which we may perhaps infer that vertical symbols were at one time partially current in India also, or that considerable license prevailed in their position. But the Arabic are so much closer to the vertical Chinese than to the Indian, that it appears most probable they were directly borrowed from that system. A comparison of alphabets shows that written symbols are very apt to be turned in all directions, right or left, up or down, in their progress amongst rude tribes, prior to the adoption of uniform materials for writing. Leaves, bark, hard bambu, cloth, coarse paper that blots, styles, reeds, quills, brushes, paint, ink &c., all influence the form and position of the symbols. The Chinese symbol for 4 appears anciently to have been, in its rudiments, 4 strokes, a horizontal with two dependent vertical, and a smaller horizontal carried out from the bottom of the right one. It has been complicated by adding two large vertical lines at the sides and one at the bottom, forming with the upper horizontal line an enclosing square which would itself represent 4. In the common figure the four lines are obtained by a simple crossing of two curved strokes. The Indian symbol is a similar cross, but with the bottoms of the curved strokes joined and rounded, that is, the figure is written without lifting the pen, and the two strokes run into one symbol, as with the Indo-Arabic 2 and 3. In the Chinese 9 the symbol for 4 is sometimes looped in the same way. The ancient Chinese 5 appears to have consisted rudimentally of 3 horizontal, crossed by 2 vertical, strokes. The common figure is a very remarkable one. It consists of a body precisely resembling the Indian form of 4 (that is, a cross converted into a loop by writing it without lifting the pen or brush), and a short stroke carried up from the left point, or it is a stroke with the symbol for 4 affixed (i. e. 4, 1). It appears to be a rounded, cursive, unilinear modification of the ancient symbol for 5. The Indian, Arabic and European figures for 5 vary greatly, but some strongly resemble the Chinese symbol. The Zend is evidently this symbol curtailed of the loop. The Devanagri, Mahratta and European are also close to it. The common figures for 6, 7, 8 and 9 are quinary, that is, they are the figures for 1, 2, 3, and 4 with a short vertical stroke to represent 5, or distinguish them from the lower series. In 9 it rests on a horizontal stroke, the figure 4 having no stroke of the kind to support it, as in 1, 2 and 3. The formal symbols are probably less simple compounds of a similar kind. The upper part of 6 is the common figure, (equivalent to 5, 1). The nomenclature was also probably quinary. The ancient 8 and 9 appear to be related. 9 is 4 without the three enclosing lines, and with the left vertical stroke prolonged above the horizontal line to represent 5. The Indian, Arabian and European symbols for the higher numbers vary greatly, and the same figure has different powers in different systems, but, like the Chinese, they appear to have been originally formed from the lower ones. Thus the Devanagri 6, is 3 reversed, with the addition of a small curve at the top. 7 is, in general, two strokes like the letter v, but variously placed, sometimes curved in both or one of the strokes and frequently resembling 1. The 7 of Devanagri and one variety of

Arabic resemble the Arabic and European 9, which is also the Indian 1, the Arabic and European preserving the simple Chinese form. The Devanagiri uses the same symbol for 9 with the loop on the right side. The same symbol serves for 6 in Arabic with the loop below but on the left side; while in Mahratta with the loop on the right, as in our 6, it is the symbol for 7. The figure for 8 is rudimentally a simple inversion of that for 7. In some systems it appears to be formed from 4 (as the name is in some systems, i. e. 8 is 4 dual). In general 9 is a modification of 6, as that in some forms is of 3, thus corresponding with the trinal nomenclature, 3, 3 dual, 3 trinal.

It may be inferred from the above that the Chinese and the various Indian figures are ultimately referable to one original, whether in China, India, or S. W. Asia. Some of the rudimentary symbols, as well as the principle of combining and modifying them, are common to all the systems. The Chinese mode of symbolising numbers above 10 is ruder than the Indian. They have distinct symbols for 10, 100, 1000, and 10,000, so that their notation exactly corresponds with the oral expression. Thus the figures for 236 consist of the symbols for 100, 10 and 6, with the symbol for 2 over the 100 and that for 3 over the 10, and it is read off "Two hundred, three ten, six." The circumstance of the figures being placed or read from left to right, instead of from top to bottom or right to left like the symbols of the ancient numerals and the ordinary characters, appears to show that the Chinese system has been influenced by the Indian and European. But its general character is that which the latter probably presented in its earliest stages. It is not likely that the idea of value from place alone preceded the use of figures, while a foreign civilised nation which had adopted the Chinese methods would be more ready to discover that the symbols for 10, 100, &c. might be dispensed with or understood, and to reject them, than the Chinese themselves. The rudiments of the Indo-Arabic notation are preserved in Chinese, and probably originated with that race.

\* The Tibetans and most of the Burma-Himalayan tribes follow the Chinese in their mode of naming the numerals above 10. But there are many exceptions and irregularities, occasioned by the mixture of systems and terms, and by languages mutually borrowing. For example even the Lhopa has not only the Tibetan term for 20, *nyi she* 2, 10, but a hybrid term *khechik* in which the Tibetan *chik* 1, is suffixed to *khe* which must be 20 or "score"; 30 is *khe-pheda-ni*, 40 *khe ni* (score 2), 50 *khe-phélang-sum*, 100 *khe nga* (score 5). In Lepcha *khe* is *kha*, 20 *kha-kat*, 30 *kha-kat-sa kati* (score one and ten), 40 *kha nyet* (score two), 50 *kha nyet su kali* (score two and ten), 100 *kha kha ngon* (score five). In Sunwar we find 20 *khalka* (score), 30 *sasi san* (10,3); 40 *khak neshi* (score 4); 50 *khak nishisasika* (score 4 and 10 one i. e. scores 4 and tens 1).

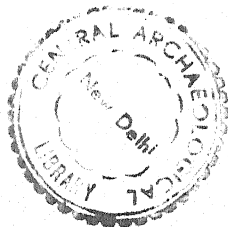
\* In the terms for 100 Chinese and Tibetan differ. The former has *pe', be', p'*, equivalent to *pak*. The latter has *gya*. The Tibetan term appears to be unknown in Ultraindia. The Chinese is found in two Naga dialects, *-puga*. The ancient Tamil *paka* has an accidental coincidence with the Chinese term. But the root *pa* may be ultimately

referable to a similar source with the Chinese. Both the Chinese and Tibetan terms have some appearance of being flexions of the terms for 8. Chinese 8 *pat*, 100 *pañ*; Tibet 8 *brgyud*, *gye*, 100 *brgya*, *gya*. If the scale is based on a binary one, as is probable, the resemblance is real. In some of the Mon-Anan languages the same root is found expressing 2, 8, and 100.

*Addendum (p. 18.)*

**47 Road.**

- g. A. dang, L tang, M dan, ga-lan, K. *kalanti* (T. U.)
- h. K. chira da.
- e. A. ngaba (? Bodo, Dhimal lama, dama Tib.)



## D.

COMPARATIVE VOCABULARY OF MISCELLANEOUS WORDS COMMON  
TO TIBETAN, INDIAN AND ULTRAINDIAN LANGUAGES,1 *Air*.

a. T. *w. lungma*, s. *lhakpa*, Serp. *langbo*, Milch. *lan*, Kir. *hak*, Murm. *lhaba*, Gur. *nangmro*; Mishm. *arengga*; Nag. *rang-bin*, *rang-che*, Manip. *nung-sit*, *thirang*, *phanra*, *khirang*, nong-lit., Garo *lam-par*, Lau lom (1).

Burman alliance, li, le, *kali*, *tali*, Changlo *ridi* &c. (Gyarung).

The Tib. *lhak*, Kir. *hok*, probably occurs in the Lepcha *sag-mot* "air", sak-ni "day", and in the Limbu *tam-sak-pe* "sky", *sa-chak* "sun".

Drav. *elaru* Fin. *lil*, *ilma*, lemin, Yukahiri *ili*, Turk. *il*, *eil*, Aino *rera*; Cauc. *churi*, Georg. *kari*; Iran. *aura*, *aer* &c.; Semitic ("wind") *re*, *ire*, *ira*; African *ahru*, &c.; Ason.—Meri *longlangi*, Sambawa *langi*. Pol ("wind") *malangi*, Rotuma *leang*, Sumba *rira*, Mandh. *iri*, "wind", *iri* Pol., *savili*, Parig. *pu-ire*, *Kaili powiri* (The same root is found in "Sky", "Sun" &c.).

2 *Ant*.

a. T. *w. grogma*, Serp. *rhunma*, Sunw. *rog-machi*; Aka *tarak*, Ab. *taruk*,

b. T. *s. thoma*, Lhop. *kyoma* (2).

Ason.—Binua *tumi*, Silong *kedam*, Ilok. *hutom*.

3 *Arrow*.

T. *w. mdah*, s. *da*, Serp. *Lh da*; New Bodo *bala*, Sunw. *bla*, Ka-*ren pla*, Singph. *pala*, Jili *mala*, Nag. *thetu*, Manip. *la*, *lu*, *nia*, *malu*, *mala*; Burm. *mra*, *mya*, Murmi, Gur. *Mag. mya*, Kir. *me* (3).

Iran.—*pila*, Sansk.; [*vil*, *veilu*, *billu*, "bow" Drav.,] *pilum* Lat., *pijl* Dutch, &c. E. Afr. *mpamba* Suah., *impamba* Makua (Drav. *ambu* &c.); Malagas. *avana*, Yoruba *offa*, Sech. *bura* "bow", Ma-*kua mura*, "bow" Asonesian.—Pol. *taa*, Pagai *rorrow*, Lobo *lara-kal*. The most prevalent Malayu—Polynesian terms are of direct Malagasy and African derivation. Indon. Pol., *fana*, *pana*, &c.

4 *Bird*.

a. T. *w. byu*, T. *bhya*; Tiberk, Milch. *pea*, *pia*, Lep. *pho*, Limb. *bu*, Chep. *moa*; Male *puj*; Nag. *vo*, o, *thevu*, Manip. *va*; Singh. *wu*, *Kyo wa*, Kumi *ka-wa* (4).

Asones.—Samb. *pio*, Kis *bau*.

b. T. *s. chya*, serp. *jua*, ? New jhango, Sunw. *chi-va*, Mish. *tsa*, Dhim.

(1) [Gyarung *tali* (Toung-lhu, *tali*, Karen, Khy. *ka i*, Burm. &c.); Manyak *merdah*; Takpa *rhot* (Gur. *mro*)].

(2) [Takpa *rhokpa*, Manyak *barah*, Gyarung *korok* (Tib. *grog*), Thochu *ta-khrpa*, Sokpa *khoro-khwe*, Horpa *skhro*].

(3) [Takpa *mia* (Burm.), Manyak *ma* (Burm. &c.), Horpa *lda* (Tib.)

(4) [Gyarung *pye pye*, Takpa *pya* (Tiberk. Milch.), Gyami *aphui-chher* (Chin. *chio* &c.)

jihā; Manip. *māsa, macha, matsa*, Nag *uso, uzu, ozah, auba* &c. (4 b).

Chin. *chiau, chio, tio*; Korea *sai*, Aino *ziāf, chirpu* &c. Tunngs. *gasha*, Turk *chush, kush, ku-hu, kus, &c.* Magyar *katsa* (fowl). *Caucasian*.—Lesg *heso, ueza, uetzu*, Circ. *zis, chshi*, Georg *kinchi*. *Asonesia*.—Sima *janga, Mank. jangang jangang* (Newar); N Aust. *hijitj*; Komr. *sisu, Lamp. su* ("fowl"); Sam. *tuhu, chuudo, chircha*; Mong. *shobo, shobon, sebecu* Hind. *Beug. chiriya* (see also *Mon-Anam*).

### 5 Blood.

a. T. w. *khrag, s.*, Serp *thak*, Lh. *thyak*, Milch. *pulach* (5).

Bengali *rakta*, Sindhi *rat*, Sansk. *rudira*, Nic. *kanak*; Ugr *wuorak*; Afr.—Saumali, Galla *dik, diga* [The Asones Pagai *logow, Buol luku, Mag. lugu, rogo* &c. Roti *daak*, are probably from *dara, laia*]

### 6 Boat.

a. T. w. *gru, Lh dru, du, Chang dru, Serp thu* (6). Abor *etku, Mish. rua, Garo rung*; Gang-Ultra *duuga, Nag lung, su-ung, arong, ru*; Murung *rung, duuga*; Khyeg, Lungkha *laung, Kumi plauug, milaung, Kyo plauug, Mon kleng, ga-lou, Lau ru, reua, An. diug, Kus. liing, Burm. lhe, Singpho li, kar khli*.

Ason—Mair. *era, Tilanj aliua, Tag. longa, Jav. palang, Indon. baru, bulu, parau, prau, Pol. falau*.

b. T. s. *koa*; Nag. *koa, khuon, kho, khung*.

Asones.—Savu *kowa*.

c. T. s. *syen, Nag. yesang; ihseng*.

Chin. *chiu, ch'hiang lang*.

### 7 Bone.

a. T. w. *ruspa, Mag. misya ros, Sunw. rushe, Chep. rhus; T. s. ruko, Serp. ruba, Gur. nug-ri, Murm. nakhu, Lh. rutok, Mish. ruboh; Nag. arah, rha, rah, aru, uru; Lepch. arbat; Manip. saru, kaku, maru, para, soru, aru, arukau, uru, thuru, khru; Yuma ru, aru, ar, Singph. nrang; Burm. aro, ayo; Lau duk, nuk* (7)

Drav. *elume, eluva, elu* &c. Pashtu *alukei, &c.* Semitic, *alam, alat; Cauc. ratla* &c. Malag. *taolana, tolan*. Asones.—Jav. *balang, Lamp. belu; Austr. pura, Baw. loh, Komr. lolor, Solor. riuk* (? Lau), Erub lid, Taraw. *ri; Indon. tulang* &c. (*Malagasy*).

### 8 Buffalo.

T. w. *mahi, s. mahe. Luh, Lepch. Murm. mahi, Gur. mai, Serp. meshi; N. & C. Tangkhul shi*.

Hind. *bhains, Beug. mohish*. Semitic *gam-bus, jamus*. The original term was probably the wide spread *mos, bos* &c. "cow" [See Naga.—Himalayan "cow"; Naga *masi* &c.]

(4 b.) [Manyak ha (Naga auba)].

(5) [Takpa khra]

(6) [Gyarun bru, Takpa gru, Manyak gu]

(7) [Tho-chu ripat, Gyar. sya-rhu, Takpa rospa, Many. rukhu; Horpa rera]



9 *Cat*.

*a.* *T. w* byila, Lh. pilli.

Hind. billi &c., Lat. felis.

*b.* *T. s.* simi; Nag. *ami*, miang, miah, mochi, mesa; N. & C. Tangkul *tumi*, *lame*; Yuna mi, *ami*, mim, nim-boi, mi-yaung; Kar. ma-miya; ? Kamb. *chima*; Bod. *mouji* (9).

Mongol *mii*, Japan *mio* &c. Chinese *miau*, *biu*, *niau*, *ngio*; *Asones*.—Indon. *miiong*, *miau*, *miu*, *meo* &c.

Is the Tib. *simi* connected with *singa*, "lion.?" In Indonesia *sing*, *kuching*, *uching* is a term for "cat".

10 *Cow*.

*a.* *T. w* ba, *s* pha *chuk* [*Tungus chyukun*], Sunw *bi*, Limb. *yopi*, Dhim *pia*; Burm. *nwa*, *nua*, Kar. *wa* *bing*, *ga phi* (10); Lau *woa*, An. *bou*; Drav. *awu*, *avu*, *pei* &c.

Ludon *sapi*

*b.* Bh. Milch. *lang*.

Fin. *lehm*, *ihma*; Cauc. *ol*, *al*; Semit. *la* (root); Galla, Amharic *lam*, Danak. *lah*, Galla *lawom*, *lawum*, Suahili *lombe*; *Ason.*—Indones. *limbu* &c.

11 *Crow*.

*T. w* khata, Sunw. *khad*; Magar *kag*. *T. s.* *ablak* (11), Serp. *kalak*, Lh. *ola*, Lepch. *olok*, Gur. *mlongya*.

[Drav. *Vindy*. Gang-Ultr. *kha*, *ka*, *khawa*, *kag* &c.]

12 *Day*.

*T. w.* *nyinmo*, *s. nyimo*, Serp. *nimo*, Lh. *nyim*, New. *nhi*, Mag. *nam-sin*, Suw. *na-thi*, hep. *nyi*, *ngi*, Chang. *ngam*, Dhim. *ngi tima*; Naga. *anyi*, *ni*, *tini*, *nhi*; Singph. *sini*, Jili. *tana*, Burm. *ne*, Kar. *ni*, Yuma. *tati*, *han-ni*; Anam. *nyat* (12).

*Tungus ininy*, *manyi*; Yenes. *na*; Cauc. *kini*, *dini*, *Asones*.—Born. *ngo*, *nga*, *ungu*, Sambaw. *auo*, Buol. *nu* &c.; ("Sun", Indon. *nen*o, *init*).

13 *Dog*.

*a.* *T. w.* *khyi*, Serp. Lh. *khi*, (13) Milch. *kwi*, Tiber. *kaoi*, Limb. *khia*, Murr. *ngangi*, New. *khi-cha*, Gur. *nagy*u, Mag. *Chep. kui*, Chang. *khu*, Aka. *Abot eki*, Dhim. *khia*, Gar. *kai*; Naga. *kui*, *hi*, *hu*; Manip. *wi* &c., Singph. *kwi*, Burm. *khwe*, Kar. *htwi*, Yuna. *wi*, *ui*, *bui*; Kamb. *chake*

Chinese *khiau*, *keu*, *keo* &c., Korea *kai*; Mong. *nokoi*, Fin. *koira karro* &c. Caucas. *koy*, *choi*, *woi*, *gwai*, *kari* &c. *Asones*.—Bin. *koib*, *koyo*, Phil. *kua*, *agai*

*b.* *T. s.* *uyo* (? Scythic, from a form similar to the Binua *koyo*)

(9) [Thochu *lochi*, Sokpa *simi*, Manyak *macheu*, Takpa *syimbu*]

(10) [Thochu *gwa*, Manyak *wo-mi* (*mi* is used generically as in ding-mi "buffaloe", See also "Cat").]

(11) [Thochu *nyagwo*, Gyarung *tabrok*, Takpa *akpo*].

(12) [Gyarung *nye*, pish-*nye*, (Burm.), Horpa *nye-le*, Takpa *nyenti* (Dhim. Nag.), Many. *nashcha*.]

(13) [Gyarung, Takpa *khi*].

14 *Ear.*

a. T. w. *rna, rnawa*, na, Lh. *navu Kir. naba*, Murm. *nape*, New. *nhai pong*, Gur. *nabe*, Mag. *na kyep*, Sunw. *nepha*, Chep. *no*, Chang. *na*; Naga *na, tenaung, telanu, tenhaun*, anve; Manip. *na, kana, khe-na* &c. [but this may be from *kan*]; Singph. Burm. *Kar, Yum. na, Kar. rho, ka-na*. (14)

Cauc. *en, iu, hauka*.

b. T. *s. am-cho*, Serpa *am-chuk*.

15 *Earth.*

T. *s. Serp.* Murm. Gur. Chep. Chang. *sa*, Lh. *sah*, New. *cha*, Mag. *ja*; Bod. Gar. *Nag.*, Karen *ha*; Naga *ha-wau* (15.)

Samoid *ya*, Jap. *tsi, zi*; Turk. *yazhan* &c.; Cauc. *misa, musa, mitza, sach* &c.; Zend *sa*.

16 *Egg.*

T. *w. sgonga, s. Serp. gongna, Lh. gongdo*, New. *khyen*.

Cauc.—Lesg. *gunuk, kor-kon, gaga* &c.

17 *Elephant.*

a. b. T. *w. glang-chen, s. Serp. langbo, Lh. lang-chen*, (17) Chang. *lang-phi*; Champ. *lamun*; Burm. *w. chhang, s n'hen*, Kar. *khong, khua*, Yuu. *sang-hung, tshi, kusai, kushai*; Mon *shen, tsiu, Lau tsang, chang, tyang, chiang*.

Chinese *chihiang, sio, siong*; Suahili *simba Asones*.—Jav. *leman, liman*, (Champhung), Biua, Mal. *beram*, Bin. *brangae, bringkil*.

18 *Eye.*

a. T. *w. mig, s. mik*. (18) Him. *mik, amik, michi, mido, mak, mi-kha*; Abor *amig, Kol m-t, med, Dhim. mi*, Bod. *magon*, Gar. *ma-kar*; Naga *mit, mik, tsuk, tenvik, tenok, amhi*; Manip. *mit, mhik, mik, amak, amicha, omit, amit*; Singp. *mi*, Burm. *w. myak-chi, myet-si*; Kas. *kamot, Mon mot, pamot*, An. *mat* [See Mon-An and Drav.]

Chinese *mok, ma', ba chiu* &c.; Jap. *mamige, mey*. *Africa*,—Makua *meto, mezo*, Suah. *mato, Kihiau mesa*, (these E Afr. terms are plural), Kongo *mesa*; Malag. *massu* &c. *Ason*.—*mat, mata* &c.

19 *Father.*

T. *w. pha, s. pala* (19) Serp. *aba*, Lh., Murm. Chang. *apa*, Lepch. Gur. *abo*, Limb. *amba*, Kir. *ba*, New. *abu*, Mag. *lai*, Sunw. *bave*, Milch. *baha*, Chep. *pa*, Aka *aba*, Abor *babu*, Dhim. Gar. *aba*, Bod. *bipa*; Vindy. *aba, baba* &c.; Nag. *apa, apu, opa, apo, va, taba*;

(14) [Gyarung *tirne*, Manyak *napi*, (Murmi) Takpa *ne-blap*, (*blap* is "leaf") Horpa *nyo*]

(15) [Lho-chu *zip*, Gyar. *se'*, Tapka *sa'*]

(17) [Gyar., Tapka *lang-chen*, Sokpa *lhamo-che*, Horpa *lamo-chen*.]

(18) [Gyar. *tai nyek, tam nyek* (Burm.), Takpa *me-long*, Many. *mni*, Horpa *mo* (Chin.)]

(19) [Gyar. *tape*, Many., Takpa, Horpa *apa*.]

Manip. apa, pa, ava, iba, papa, avu, Singph. wa, Burm. phae, Kar. pa, Yum *ka-pha*, phai, ba, bo, abha; Mon bah, bha.

Common in all parts of the World, Mongol, Samoide, Turk., Semitic, Afric. aba; Turk. Tumali baba &c. &c.; Asones.-bafa, papa, bab, ibpa, pua, pupa &c. &c., [ibu (Manip) "Mother"]

## 20 Fire.

T. Him. me (20), Him. mi; Aka ummah, Abor eme, Dhim. one; Naga mi; Manip mai, *chami*; Burm. mi, Kar. me, Yuma mi, me, mai; ? Mon miot; (See Mon-An)

Chin. we; Aino abe, apoh, umbe, Jap. fi; Fin bi &c; Afr.—Tumali ibi, ibe, Kuam. mo, Malagas afe, apo, afu; Ason.—Niha-Pol. ate api &c.

## 21 Fish.

T. w. New. nya (21) Murm *tar nya*, Lh. nya, T. s., Serp Limb. Kir. nga, Sunw ngau, Gur. *tungna*, Lep. ngo; Aka ngay, Abor engo, Bod. Gar na; Naga nga, ngia, nya, angu, aunga, kho; Manip kha, *chakha*, khai, khi, nga, sauga, *thauga*; Anam kha, Mon ka, Kas. dokha, Nicobar ka.

Fin kal, kol &c, Samoid kual, Korea koki. Asones.-ka, ika, ikan (Mon-Anan)

## 22 Flower.

T w metog, s. mentok, Serp. mendok, Lh. mentog, Murm. men-du, Tiberk. ments. (22)

Galla doko.

## 23 Foot.

T. w rkangpa, s. Serp. kango, Lh. kanglep; Mikir keng; Manip. kh ng, ki, akho, ake; Singp lagong, Kar. khong, kha, Yum akauk, akok, ya-kong; Mon chang, dzoug, Kamb. chong, An. kang-shun. (23)

Drav kal, Chinese kha. Asones.—Australian kuna (Drav); Simang chang, Tobi chem (Mon-Kamb); Iudon. kaki &c. (Yuma); Fin, Chukchi, Eskim, Cauc. See Drav.

## 24 Goat.

T. Lh, Murm Gur Mag. ra, (24) Changl. raba; Kol meram, Urao. era; Naga roan, ron. Garo purun, Bodo barma.

Semitic aron, Saumali arre, Danak. illa, Galla ri.

## 25 Hair.

a. T. w skra, s, Murm. kra, (25) Lh kya; Singph kara.

Fin karw, Aino karau, Koriak kirtshuvi, kirvyt. Cauc—Lesg. chara; Afr.—Makua karare, Saumali dokore, Galla &c. chegur.

(20) [I'ho-chu, Takpa me', Many. same', Gyar. timi, Horpa uma' (Aka)]

(21) [Gyar cho-nygo, Takpa nya, nga Horpa hys].

(22) [Many., Takpa mento, Horpa meto].

(23) [I'ho-chu jako (Yuma) Horpa ko, Sokpa khoil (Drav.)].

(24) [Takpa ra]

(25) [Takpa kra].

*Ason*.—Cer ukar, Australia tulkure

b T. s Serp ta, Limb. thagi; Kar thu (See Mon-An.)

Fin ata, at &c. *Asones*.—? Paneitawa

c T w sou, Dhim. mui tu; (25c) ? Kol ub, up.

Fin up, ip; Chin. bo. *Ason*.—bok, but, bu &c (probably Dravir.)

## 26 Hand.

T. w. lag pa, (26) s. Serp. lango, Lh. lappa, Lep kaliok, New pa laha, Gur. lo<sup>o</sup>ta, Aka lak, Abor. elag; Naga dak, chak, yak; Singh leta Burm w. lak, s let.

Turkish iik, Ost lagol. *Ason*.—Indon. langan (generally "arm"), Sunda lingan, Pol. ringa, linga.

## 27 Head.

T. w. mgo, s. Serp go, Lh. gutoh; Naga kho, tako, Manip. kok, kui, kau, akao; Burm. ghaung, lu-gu, Kar kho; Nicobar koi. (27)

*Ason*.—Simang, Bin. koi, kue, kai, (Manip. Nicob.), Balignini ko, Butan ogho. Jap. kaobe, Kam kabbel; Aust. kabera; Cauc.—Circ. kah, aka &c; Iranian kapala, caput, &c

b Gur kra, Mish. mkura, Bod khoru, Manip. takolok (Tib. kra "hair"); Yum lu, blu; ? Kas kli,

Cauc.—korte &c Iranian kala, cranium &c. *Asones*—Sim kala, Aru guli, Born takolah, Mal, "scull" tankora.

## 28 Hog.

T. w. phag, s. phakpa, Serp phak, (28) Lh. phagpo, Chep piak, New pha, Sunw pu; Mag wak, (? Aka kukpa,) Abor eek. Garo wak; Naga wak, ak, auk, thevo, thavo; Manip. bok. kabak, avak, wok, bok, ok, Singp wa, Burm w. wak, s. wet, Yum wok, wet, wut.

Malayal parki, Iran pig, hog, porcus &c.; Cauc hake, khaka, ka bkaka &c. (Aka kuk-pa) *Asones*.—Batan bagu, Sirawi kapot, (Manip kabak), Pol. puaka.

## 29 Horn.

T. w. ra, (29) s rajo, Lh. rou, Murm. rhu, Gur. ru, Sunw. guro; Lepch. arong, Chep rong, Chang. warong; Abor areng, Mish riu, Dhim dang, Garo korong, Bodo gong; Kol daring, dring, Ur. marag, Male marg; Naga rong, wong; Singp. rung; Mon kreang, greang, Kas. ka reng.

## 30 Horse.

T. w. rta, s, Serp. Lh. Mur. ta (30), Yuma tsa, sha, Kar kthai, kthe; Turk. ut, at, Yenik kut, kus &c. [Hence kuda, ghora, &c.] Arm. tsi, Cauc shu, tschu, &c. Sam. djuka, tshunde; Sansk ashwa &c,

(25c) [Takpa pu, Horpa spu, Many. mui (Dhim.).]

(26) [Gyar. tayak (Naga), Many. lap-che', Takpa la, Horpa lha].

(27) [Gyar. tako, (Nag) Takpa gok-ti (Manip) Horpa gho].

(28) [Foh-chu pi, Manyak wah, Takpa pha, (Newar) Horpa vah].

(29) [Fho-chu rak, Gyar. taru, Many. rubu, Takpa ruba, Horpa kru<sup>o</sup>bo]

(30) [Takpa te'].

31 *House.*

*a.* T. *w.* Lh. khyim, Kir. khim, Murm. dhim, Sunw. khi, Gur. tin, Limb hin, Serp. kangba; Abor ekum; Naga hum, ham; Manip. yim, yin, shim, shin, tsun, chim; New. chhen, Burm. im, eing, Kar. hi, gueng, Yuma ing, eing, um; Magar yum; Mon he, Kas? root ini, Kuki teng. (31)

(Samoiede ma, me, men &c. ?) *Ason.*—Tobi yim, Mille im, Sunda ima, Sav. emu; Indon. ruina, huma.

*b.* T. *s.* nang; Mrung nao, Bod. nou, noo, no, Anam dang, na, ya, nya, ngua.

*Cauc. unneh.* *Ason.*—Lamp nou (Bodo).

32 *Iron.*

T. *w.* Ichags, *s.* Serp, Lh. chhya; Naga kache, katse; Mon pasoe, pathway. (32)

Korea soi, suy, Samoïd yese, bese, basa, &c.; *Cauc.* achik, icha, ask &c.—; Iranian æs, eisen, ayas; *Ason.*—Indon. base (Mon pasoe), bosi, basi, besi, bisi &c.

33 *Leaf.*

*a.* T *w* loma, Lh. dama, Lep lop (33) Murm. New. lapte; Gur. lau, Mag. lha, New. hau; Abor anne, Mish. nah, Dhim. lhava, Bod. lai; Manip. na, thi-na, thing-na, sing-nu ("tree-leaf"), Singp. Jili lap, Burm. rwak, yuet, Kar. la, Yuma la-kang, An. la; (Drav. elei, ela &c.)

Fin. lopa, lopat, lopta &c (Tib. Murmi &c); Malagas. ravi; *Ason.*—Erub lum, Bima rupa, Savo rau, Pol. lau, rau, Indon. daun, rau, Sumatra, Phillip. botong, Mal. &c. lai, a segregative used in enumerating flat objects, as cloths, sheets of paper &c.

*b.* Tib. *s.* hyoma, iyowe, Serp. hyomap, Lh. syoma, New. hau. Chin. hio.

34 *Light.*

*a.* T. *w.* hod, Limb. ot; Naga oitike. (34)

Turk. syod.

*b.* T. *s.* hwe, eu, Serp. Lh. ew, Singp. thoi, Jili thwe.

35 *Man.*

T. Him mi, Abor ami, (35) Mish. name, Garo miva; Naga mi, ami, theme, thema; Manip. mi, thami, mu, samu, mai, chamai; Yuma ku-mi. Fin. mios, mis, mes, pioa; Turk. bai; Zend. memio; *Afr.*—Galla mi, ma, Manding. ma. *Ason.*—Indon. mama.

36 *Monkey.*

*a.* T. *w.* sprebu, (36 a) Lh. pya; Aka lebe, Abor sibie; Naga veh;

(31) [Tho-chu kih (Sunw.) Gyar. chhem, Takpa khem].

(32) [Tho-chu sormo, Gyar. shom, Horpa chu, Many. shi].

(33) [Horpa dala', Takpa dlap (New., Dhim)].

(34) [Tho-chu uik, Horpa spho (Turk.), Many. wu', Takpa wot, Mru watai].

(35) [Gyar. tirmi (Nag Manip.), Takp. mi'].

(36 a) [Gyar. shepri, Takp. pra].

Singp. *we*, Jili *tawe*, Kar. *ta-aoe*.

*Ason*.—Indon. ? brok, belo, ubal.

*b*. T. *s. tyu*. (36 *b*)

### 37 Moon.

T. *w. zlava*, *s. dawa*, (37) Serp. *oula*, Lh. *dau*, Lepch. *Javo*, Limb. *Java*, Kir. *la dima*, Murm. *lbani*, Changlo *lani*, New. *mila*, Gur. *lau ngi*, Sunw. *la to si*, Chep. *lame*, Aka *pala*, Ab. *polo*, Mish. *nalua*; Naga *da*, *leta*, *luta*, *yita*, letu, le; Manip. *lha*, *tangla*; Singp. *Jili sata*, Burma. Kar. *la*, Yum. *lo*, *slu*, *hla-pa*, *ta*; An. *klang*, Lau *lun*.

Fin. *mano*, Korea. *oru*, Samoid. *iri*, *ireda* &c., Chukch. *iraluk*; Iran. *luna*, moon, mon-! &c. Afr.—Danak. *bera*, Felup. *fylein*, Malagas. *vula*, *vulan*. *Ason*.—Austr. *palu*; Indon. Pol. *vola*, *bula*, *bulan* &c. (through Malagasy.)

### 38 Mother.

T. Him. *ama*, *amo*, *am*, *ma*, *mang*, *amai*, (38) Mish. *nama*; Dhim. Gur. *ama*, Bod. *bima*; Burm. *ami*, Kar. *mo*, Mrung. *amo*; Kas. *kami*, Kamb. *mi*, An. *me*.

Nearly universal, e. g. Yukahiri, Yenisei, Samoid., Fin, *ama*; Africa, Malagasi, *ama*; Asonesia, *ama*, *ma* &c.

### 39 Mountain.

*a*. T. Serp. *ri*, Aka. *nodi*, Daphla. *modi*, Abor. *adi*; Dhim. *ra*; Yuma. *lai*, *mu-ra*; Lau. *loi*, *noi*, *doi*; Lhop. *rong*; Manip. *malong*, *kalong*, *klung*; Kar. *ko* long, Yum. *klang*, *hlang*, *slang*; ? Mag. Sunw. *danda*.

Chin. *lia*, Tungus. *alin*, *uro*, *ura*; Mong. *ala*, *ula*, Fin. *ur*, *Ason*.—Indon. *lulob*, *iefeh*, *lada*, *lede*, *alanga*, *olono*, *gunong* (Manip. *ka-long*).

*b*. T. *s*. (W Tib.) *dak*, Lepch. *rok*, Milch. *dokang*, Tiberk. *dung-kang*, Chamang. *donk*, Limbu. *tok-song*; Male. *toke*, Gond. *dongar*; Jili. *satong*, Burm. *tong*, *taung*.

Turk. *tak*, *tag*, *dag*, *tau* &c., Japan. *dake*, Aino. *tapkub*. *Ason*.—Indon. *letek*, ? Erub. *tulik* [Viti. *toka-tau*, but here *toka* probably means "fixed"]. *thuang solo* Rotuma.

### 40 Mouth.

T., Serp. Lh. *kha*, Milch. *kagang*, Chamang. *kaik*; Aka. *gam*, Mish. *taku*; Bodo. *kugha*, *khoug*; Angami. *Naga ata*; Kar. *kho*, Lung-ke. *aka*, Kum. *uk-kha*.

Chin. *khau*, *hau*; Yenisei. *ko*, *gou*, *khan*; Sam. *aagan*, *ak*, *agma*, *ake*; Turk. *akse*, *agus*, &c.; Japan. *kusi*, Kamch. *kaska*; Cauc. *haku*; Semitic. *kho* (Gara, *Mahra*); Mongol. *kurgo*, *gurga*. *Ason*.—Austr. *ka*, *karaka* (Mongol); Jav. *chikam* (Aka).

### 41 Mosquito.

*a* T. *w*. *sunbu*, *mchurings*; Abor. *sunggu*; ? Kol. *bhu-sundi*, *bhu sendi*; Manip. *sangsan*, *hacheang*, *kachang*; Kumi. *chang-rang*. *Ason*. Kaili. *sani*, Murray I. *souney*. Bima. *samulan* (Kumi)

*b*. T. *s*. *syedongma*, Lh. *zen-dong*, Him. *lam* (with other roots join-

(36 *b*) [Gyar. *ti*].

(37) [Gyar. *tsile*, *chile'* (Nag. *le*), Many. *lhe'*, Takp. *le'*].

(38) [Horp. Many. Takp. *ama*, Gyar. *tomo*].

ed); Aka tarang; Naga mangdong; Kumi chang-rang. *Ason*.—Sas. tutang, Bat. tirangkas.

#### 42 Name.

T. Him ming, min; Abor amin, *Wish. arang*; Dhim ming, Bod. Gar. mung; Naga min, man, *tenung*; Manip ming, *aminin, omin, mi, amang*; Singp ming, *Jili taming*, Burm. amin, *ami*, Kar. mi, meng, Yum-aming, *amun*.

Common.

#### 43 Night.

T. *w. mtshanmo*, *s. chenmo*, Serp. chemo, Limb. *kusen*, *sendik*; Dhim. nhi-shing; Naga asang-di (Limbu); Manip. *rasa, rosa*; Singh. sana, *Jili sanap*.

Turk. *achsham*; Mong. *so, chei, suni*; Yenis *sai*; Aino *asi, asiru*; Jap. *joru*, Fin *ose*; Semitic *asar, azar*, (Mar. Ghar.); *Afr.*—Malagasi *asine*; *Ason*.—Balig. *sanguna*, Tid. *singi bunggi*, Mang. *chan*.

#### 44 Oil.

a. T. *w. hbrumar*, *marku*, Bhut. *makhu*.

Japan *abra*; ? Kilimani, *makura*.

b. T. *s. Serp. num*, Lep. *nam*, Limb. *ninge, mingay*; Kol *sunum*; Naga *manga*; Singh. *Jili, Lau nam-man*.

*Ason*.—Bis *nana*, Pol. *faugo, pani*; Indon. *miniak, minako, miau* (Limbu, Naga).

#### 45 Plantain.

T. *s. Lh. ngala*, Kir. *ngak-si*; Naga *ngo, mungo, mango*; Manip. *ngo-shi, nga-chang*; Singp. *lango, Jili khungo*.

*Ason*.—The Indon. *pisang* may be an Ultrandian term, *pi-sang* (Comp. *nga-chang* &c.)

#### 46 River.

T. *w. gtsangpo, s. changpo*, Serp. *hyung*, Lhop *chhu kyong*, Lepch. *ong kyong*, Limb. *wohong*, Mur. *syong*, Kir. *hong-ku*, Gur. *khwong*; Mishmi *tsalo*; Naga *joan, shoa, swokha*; Manip. *shinggu*; Anam *song, sung, som*.

Pashtu *sean, sin, sint* (hence *Sindu, Hindu, Indus, Scinde* &c.); Ugr. *shor, shur*; Mongol *chun, usun*; Turk. *usun, su, sug, yai-su, dsulga* &c.; Ugr. *iyaga, yugan* &c.; Sam. *yacha* &c.; Ug. *yo, yozi* &c.; Korea *ha syu*. *Ason*.—Indon. *sungei, sungai, sunge* &c.; Cel. *salu*.

#### 47 Road.

T. Hin. *lam*. New Ion, *Sunw. la*; Aka *lam-tau, Ab lam-be* Mish. *ailam*; Dhim. *dama*, Bod. *lama*, Gar. *lam*; Naga *lam, unglan, lemang*; Singp. *lam. Jili tanglong*, Burm. *lam. lan, Yum lam, lang*; Kas. *lanli, Mon dan, ga-lan, An. dang, Lau tang*.

Chin. *lu, lau*; Gara *orom, Mahra horom*; *Afr.*—Malagasi *lalambe, Sushili jira, Sech sela, Ason*.—Indon. *rorong, lorong, balan, Jara* &c. Iangan, *turang, taluna, dalang, dala, jolo, jalan, Pol. sala, hala, haranni, ura,*

48 *Salt.*

*T. w.* tsha, *s.* Serp. Lh. chha, Mur. Gur. chacha, Mag. cha, New. chhi; Dhim. dese, Bod. shiyung kare, Gar. syang; Naga matsu, metsu, matse, machi, sum, hum; Manip. ntsu, machi, miti, ti, nchi, matai, kasam, thum; Singp. tsum, Jili chum, Burn. ehha, tsha, Kar. itha, Yum ma-tsi, shete.

Japan shiro; Ugr. sow, sol, sula sek, so, &c.; Samoide si, sir, sak &c.; Cauc. shug; Indo-Gur. sal, sulz, sout, salt &c.; *Afr.*—Galla usu, Danak assebo, Malagasi sira (Jap. Sam.) *Ason*—Indon sia, asi, si-yok, sien, asin, asiad, sira (Malagasi), mase (Manip. machi), masikh, masin, penasin, mengahi Pol. ubane, masina, masi.

49 *Sk n.*

*T. w.* pagspa s pagpa; [? Bodo bigur, Garo bigil]; Naga takap, (inv.); Jili maphik; Singp. phi, Kar. phi, Yum moe-pik; ? Kamb. si-bek.

Chinese,-phi, phue: *Ason*.—Austr. bokai, bakai.

50 *Sky.*

*T. w.* nam kha, *s.* Serp. Lh. nam, Kir. nam-cho; Naga aning, anung. Samoid,—nom, nun, nob, nyoa; Ugr. in, inak, inaiyn, numma, nomen, nair; Kashmir nab; *Ason*.—Timor neno, Kissa onga [See Sun, Day.]

51 *Snake.*

*T. w.* sbrul, *s.* deu, Serp. drul, Lep. beu, Mag. bul, Sunw. bu-sa, Gur. bhuguri; Aka tabuk, Abor. tobi Mish. tobu, Bod. jibou, Gar. dupu; Kol. bing; Naga pu, phala, purr, thofa, ahu; Manip. marun, pharu, phru, phru, mari, phurun, phrul, lil, nrui; Singp. lapi Jili tapu; Burn. mrwe, myue, Yum. rul, rui, pui, pwa, marui; An ran.

Malagasi bibi; Kwamam, oria; Bengali uraga, Hind. Pash mar; *Ason*.—Tilang. bio (Lepch. Yuma) N. Austral. ambit; Indon. ular, ula, orei, ahin &c.

52 *Star.*

*T. w.* skarma, (52) *s.* Serp. karma, Lh. kam, Mur. kar-chin, Gur. targa; Ak. takar, Abor. tekar; Manip. tikron; Singp. sagan, Jil sakan, Burn. kre, kye.

Ugrian,—ohur (Ost.); Koriak ogor; Yenes kaken; Korea kurome; Mong. odon; Iranian, tara, dara, staranm, astrum, stella, star &c.; *Afr.*—Suahili tara; *Ason*.—Kayan kraning, Viti, kalo, Indon. entara, ndara, dala, etah, tawar, war &c. (war is probably a different root, being found in New Guinea, Torres St., Australia &c., tara is probably of recent Arian origin.)

53 *Stone.*

*T. w.* rdo, *s.* Serp. Lh. do; (? Gond. tongi; ) Anam da.

Korea tu; Ost. to; Other Ugr. lang, ko, ku, kiwi &c. ? Malagasi vatu.



54 *Sun.*

T. *nyima* (54); ? Kol *singi* (see "Day").

55 *Tiger.*

T. *w. stag*, *s. tak*, (55) Serp *jik*, Lh. *tah*; Yuma *tohak-ke*, *tuk-koe*, *tagain*

Iran. *tigris* &c.

56 *Tooth.*

T. Serp. Lh *so*, (56) Tiberk *soa*; Murm. *swa*, New *wa*, Gur *sa<sup>k</sup>*, Mag. *syak*, Changlo *shia*; Nag. *pa*, Manip *ava*, *ha*, *hu*; Burm *swa*, *thwa*.

Japan *cha*, *ha*, *fa*; Ugr *pu*, *hui* &c; Semitic *sin*; Turk. *tis*, *tish* &c, Tungus. *it*; Afr — Malag. *mifi*, *nife*. Ason.—Indon. *yus*, *titi*, *ngisi*, *isi*, *nisik*, *niso*, *niho*, *nito* &c (Malag)

57 *Tree.*

T. *w. ljon-shing*, *s. shing-dong*, *tam*, (57) Serp. *dongo*, Mur. *dhoing*. Lh. *shing*, Tiberk *Milch botung*, Limb Mag. *sing*, Kir. *sang-tang*, Gur. *sin-du*, New *sima*; Aka *sangna*, Ab. *sine*, Mish *masang*; Dhim *shing*; Naga, *sang-tung*, *san-tung*, *sun-dong*, *si*; Manip *thing-bang*, *sing-bang*, *thing-kung*, *thung-rong*, *asing*, *hing-tong* (Lib.), *hing-bang*; Kar *theng*, *thi*, Yum *ting*, *teing*; Kas *ka diing*, Lau *ton*, *tun*

Chinese *shi*, *shu*, *ch'hiu*, *chang* &c; Yenes *hochon*; Sam *cha*; Ug. *suy* &c; Cauc *che*, *she*; Kamch *uthun*, *utun*, *unda*; Ason — Lamp. Land *batang*; Phil. *datung*, Sunda *tang-kal*, (Mal &c. *tang-kai* "stem").

58 *Village.*

*a.* T *w. yul tsho*, *s. thong*, (58 *a*) Kir *teng*, Chang *dung*; Abor *do-lung*, Mish *mating*; Gar. *song*; Naga *ting*, *ting-khua*, *ching*.

*b.* T *w. yul tsho*, Serp. *yul*; (58 *b*) Naga *yum*, *ayim*, *yam*; Maring *yul*, *yon*.

59 *Water.*

T Serp. Lh *chhu*, (59) Limb *chua*, Kir. *chawa*, Gur. *kyu*, Sunw. *pankhu*; Naga *tsu*, *dzu*, *zu*, *atsu*, *tu*; Manip. *aichu*, *tu*, *tundu* [Gang-Ultr *ji*, *si*, *ti*, *di*, *ri*, *tui* &c Mon *dai*].

Chinese, *chui*, *shui*, *sui* &c; Jap *mizu* &c; Samoid *tui*, *itu*, Ugr. *uit*, *ute*, *wesi*; Turk. *shiu*, *su* &c; Mong *usu*, *usun*; Ason.—bisan, *mazi*, *meze*, *mazi* &c. Ason.—Indon. *chie*.

60 *Yam.*

T. *w. dona*, *s. thoma*, (60) Serp. *dhoa*, Murm. *teme*, Gur. *taya*; Bodo Mrung. *tha*; ? Kol *da sang*.

Chinese *dua* *tu*, *tua chu*; Ason.—Indon *uda*, New Cal. *uti*.

(54) [Gyar *kini*, Many. *nyima*, Horpa *nga*].

(55) [Horp *stak*, Takpa *tee*].

(56) [Thoch. *swe'*, Sokpa *syu-chi*, Horpa *syo*, Gyar. *tiswo*, Takp. *wa'*, Many. *phwi'*].

(57) [Gyar. *shi'*, Many. *sapo'*, Tapk. *sheng-dong*].

(58 *a*) [Gyam *twang-cha*].

(58 *b*) [Takpa *yu*, Many *hu*, ? Gyar. *wo-khu*, *tu-khyu*].

(59) [Thochu *chah*, Gyar. *tichi*, Takpa *chhi*, Many. *dya'*, Gyam. *shui* (Chin)]

(60) [Gyar. *seten*].

## APPENDIX TO CHAP. VI. OF PART II.

## E.

VOCABLES NON-BHOTIAN IN ROOT OR FORM COMMON TO THE NORTH  
ULTRAIINDIAN, HIMALAYAN, AND MIDDLE GANGETIC LANGUAGES. \*

## 1 Air.

a. Changlo *ridi*, Aka *dori*, Yuma *ali*, *kali*, &c. Burm. *le*, Kar, *hli*, *khli*.  
(1a).

Fin *ilna*, *iln*, [*ila*, *elania*, *elem* &c. "Life"] Wog. *lil* [Ost. *lil*, *wul-ta*, Mag. *el-t*, "Life"]. Turk *maıl*, *chıl*, (Comp "Wind", Yukahiri *ili*, Aino *vera*, Turk *il*, *eil*, *chil*, *sil* &c.; Mahrah *era*, Gara *ire*, Arab *re* &c.)—Ason.—Sumba *riry*; "Wind", Mandh. *iri*, Ut. *lauri*; Celeb. *puire*, *pori*, &c.; Aust. *mail-wiri-nguma* &c.; Pol. *savili*. [See D 1]

b. Limbu *samit*, *shami*, Lepch. *sagmat* Mag. *namsu*, Sunw. *phase*, Milch *hash*, Ab. *asar*; Manip. *nung-sil*, Khoib. *nong-lit*, Maram *nhlut*, Luh. *masi*, N. T. *masu*, C. T. *mashia*, Maring *marthi*; Nag, *rang-che*.  
(1b).

Mong. *achur*, *ahur*, *uhr*, Tib. *hur* (wind) [See B, Mon-An. The Bima *simei* appears to be connected with the Limbu *shami*].

## 2 Ant.

a. Serp. *rhunma*, Abor-M. *mirang*, Mish. *aruang*, Jili *tsang-lang*, Luh. *chaling*, N. T. *lang-za*, Khoib *miling*, Mar. *phayang*; Yuma *pa-leng*, *maling*, *pa-lein-tsa* [Drav. Ason.—see Drav. Some of the Asonian words are immediate derivatives from Ultraiindian. Thus the Maring *miling* is found in the Bugis and Dore *biri*, Kand. *bere* and with a final *s* in Madur, Baw. *bilis*, but this may involve a separate root for Simang has *les* and Pani *las-ga*. The Abor *mirang* and Mishmi *ruang* render it probable that the Tibetan *rag*, Sunw. *rag-machi* and Burman *pa-rwak-chhit* or *pa-quot-sik* present the same root]

b. Gur. *chiji*, Sunw. *rag-machi* (*rag*, Tib.); Murmi *syon-ri*, Bod. *ha-sa* brai, Ahom *nyuchu*, Deoria Ch. *chimechi*; Nag. *macha*, *mathang*, tik-*sa*, tik-*ha*, *hache*, hung-*zah*, *tsip chak* &c.; Manip. D lang-*za*, cham-*cha*, kak-*cheng*, nteang, nteng, tangin, mat-ang-pwi, ching-*kha*; Yuma *matsti*, pa-lein-*tsa*, Burm par-wak-*chit*; (Drav. *chima*, *pijin*)

c. Lepch. *tak-phyul*, Limb sik-chem-*ba*, Kir. sa-*chaka-va*, Nag. tik-*sa*, *tsip-chak*; Manip. kak-*cheng*.

## 6 Boat

Gurung *pla-va*; Kumi *plaung* [See Tib-Ult. and Drav. (a)].

\* In App. E the roots, not the derivatives, are italicised. I have substituted "non Bhotian" for "non Tibetan", as Mr. Hodgson's East and North Tibetan vocabularies now show that several of the vocables are Tibetan.

(1 a) [Gyar., Toung lhu ta li]

(1 b) [Thochu mozyu (Manipuri D. masu &c.)]

## 7 Bone.

Gurung *nugri*; Garo *gring*, *hereng*, Maring *khru* &c. [See Tibeto-Ultr.]

## 8 Buffaloe.

a. Limb. *sawet*, Kir. *Sanwa*. *Saw* and *san* are probably the root used for "Cow" (b.),—*et* and *wa* being def. postfixes.

b. New. *me*; Deor. Ch. *me*, Asam *moh* ("Cow" Murm. *mhe*, *mih*, Sunw. *bi*, Burm. *me*.) (8 b).

c. Aka *men-dak*, Abor *men-zeh*, *men-jek*, *men-jeg*; Naga *tek*. "Cow" Ch. *ta-gu*, Turk. *inak*; ? Fin *traks*. Ason.—"Cow" Bis. *daka*.

## 9 Cat.

Yuma *mim boi*, Newar *bhou* (9).

## 10 Cow.

a. Sunw. *bi*, Limb. *bit*, *yapi*, Kir. *pit*, Lepch. *bik*; Dhimal *pia*, Kar *hpi*, *bing*, Bengali *ga-bhi* (Drav. *pei*, *peta* &c., and see B, Mon.—An. and D, Tib.—Ult.) (10 a).

b. New. *sa*, Aka *shye*, Abor *sou*; Mishmi *ma-tso-kru*; Singph *kan-su*; Gar. *mashu*, Bod. *mas/uo-go*; Naga *masu*, *masi*, *nasi*, *mahu* &c.; Kasia *ka-ma-si*; Yuma *shya*, *tsi*, *tcho*, *ma-chou* ("Buffaloe" Tib., Ultr.—Semitic). (10 b).

Chin. *sua gu*, *sha gau* &c. Ost. *mes*, Perm *mos*, *mus*, *mys*, Wog. *misye*, Lat. *bos*.—Af. Sumali, Galla, Bishari &c. *soah*, *sua*, *osha*. The Ostiak *chosy*, Kamchat *kusha*, Lap. *kusa*, *kos*, Shangalla *kusa*, appear to combine the sibilant root with a prefix or another root. Comp. Singpho *kansu*.

c. Gur. *myau*, Mur. *mhe*. These forms are probably related to a, See also "Buffaloe" b.

d. Mag. *nhet*. *Nhet* is possibly the Turk. *inek*. (10 d).

## 11 Crow.

Aka *pak*, Ab. *pivag*, *piak*, *puag*, Naga *vakha*, Yuma *uak*, *wuf*, S. Tangk *awak*, Maring *ak*, Maram *chag-hak*. (11). Ason.—Tag. *ovak*, Iloko *wak*.

## 12 Day.

a. Limb. *len-dik*, Kir. *len*, (12) Abor *longe*, Songp. *kalhan*, Mar. *lan* &c.

Ug *lun*.

(8 b) [Manyak *diz-mi*.]

(9) [Takpa *syim-bu*.]

(10 a) [Mang. *wo mi*.]

(10 b) [Sok-pa *sa lo*, Thochu, "bull", *zyah* (Yuma "cow" *shya*)].

(10 d) [Gyar *nye nye*, Gyami *nyen, neu*.]

(11) [Takpa *akpo*, (Maring *ak*), Thoch. *nyag-wo*.]

(12 a) [Takpa *nyen ti* (Limb. *len dik*). The Horpa *nye-le* appears to show that *nyen, len*, is the Tibetan *nye* with an *n* postfix].

b. Magar nam-*sin*, Sawm na-*zhi*, Tiberk. *zhang-ma*, Singphu ning-*shoi*, Nag. *asonga*, *tsing*, Deor. Ch. *sanya*. Lungkhe sun Manip ngasun, *masung*, asun Rakh "Sun" *tshan*, Burm. *tscheng*, *chung*, Nancow. *han*, Bod. *shyan*, (Garó *san*, *rasan*, Kol *sing*). The word is radically "Sun" in most of these languages

Ug *shun-du*, Tangusian. "Sun", *shun*, Ost. *siunk*, Semitic *sham*, *-shams* &c.

## 15 Earth.

a. Limb. *kham*, Kir ba-*kha*, Sunw. *kha-pi* (? Tib. New. *cha*, Tib. *sa*) Singf *nga Jili taka* (whence probably the Naga *katok*).

b. Lepch. *phat*, Manip. lai-*pah*. (15 a).

## 16 Egg.

Dhim *tai*, Naga *ati*, Limb. *thin*, Kir. *uding*, Changl. *go-tham*, Tiberk. *tum*, Dhim. *tui*, Bodo don-*doi*, Gar. *tou-chi*, Singphu *udi*, Burm. *z*, Kar. *di*, Milchanang *li*, *lich*, Asam *koni*, Yuma *wati*, *adui*, *atui*, Nag. *ati*, *oti*, *utu*, *utsu*, *ansu*, *hadsu*, Manip. *nroi-dui*, *maka-tui*, *hachu*, *atu*, *artu*, *wayui*. (16)

## 17 Elephant.

a. Newar, Chepang *kisi*, Sunw *so da*, Abor-Miri *siti*, *site*, Manip. *ka-sai*, *sai*, Kar. *ka-tsho*, Nag *sati*, *shiti*, *suti*, *tsu* (see Tib.-Ult.)

## 20 Fire.

Garó *wol*, *ver*, Manip. *wan*, *tavan*, Singph. *wan*, Nag. *van*, (Mon.-An.—"Sun", "Sky".)

## 22 Flower.

a. Limb *phung*, Kir. *bung-wai*, Sunw. *phu*, New. *swong*, Aka *pung*, Abor. *apun*, Nag. *taben*, *chuben*, *nhopu*, *popu* &c. Manip. D. *abun*, *won*, *pie*, Burm. *pan*, Kar. *hpa*, Guma *pa*, *par*, *pupa*, Deor Ch. *iba*, Garó *par*, Bod. *bibar*; Drav. *pu*, *puva* &c

Ch *fa*, *hua* &c Japan *fana*, Semitic *ful*. Af.—Bagnon *gufon* Felup *ba fan*, Malag. *vong*, *vono*, *vuna* &c. Ason—com. *fonga*, *bunga* &c.

["Flower", is not included in Klaproth's Scythic vocabularies.]

b. Mag. *sar*, Lep. *rip*. Chep. *ro*, Manip, *par*, *rai*, *lai*, *cha-ra* pen (*pan* &c. in other dialects) Nag. *naru*, *notong* (? Drav.)

## 23 Foot.

a. Milch *bung*, Tiberk. *bung khut* Manip. *wang*. Limbu. lang *dophe* (Uraon *dape*) Changlo *bi*, Nag. *uphi*, Bodo *yapha*, Maram, Songpu *phas*, Kor. *chapi*.

*pa* is a common Asiatic root, but in most formations it takes final *r*, *n*, *d*, *t*, *s*. &c., e. g. Korea *par*, Kash *bhoer*, Sindh. *per*, Hind. *pair*, Sansk *pada*, *pad*, Europ. *pes vado*, *foot* &c; Beng. *pa*, *paya*, Semitic *po'im*, *pa'am*. Af.—Malag. *pe*, *fe*, Galla *fana*. Ason.—Pol. *wai*, *wae*, *vae* (Manip.), Mak. *bangkang*, Sol *opat*.

(15 a) [Horp *kcha*].

(16) [Gyar. *kitan*, Gyami *chi-tun*].

- b. Murm. *bale*. New. *pali*, Gur. *bhale*. Abor. M. *ale*, Mag. *mihil*.  
 c. Sunw. *khweli*, Kir. *ukharo*. Burm. *khre*, *khye*, Kor. *khodu*, Tiberk.  
*lung khut* (Drav.)  
 d. Dhimal *khokoi*, Kumi *akok*, *akruk*, (Tib. Ult.)

## 24 Goat.

- a. Aka *shabam*. Abor. *shuden*; [Dhim *eecha*.] Nag. *nabung*, *na*,  
*bong*, Manip. *hameng* [See Mon An.]  
 (not included in Klaproth's Atlas).  
 Af. Malag. *beng. umby*, Woloff *biente*.  
 Ason.—Indon. *bembe*, *bimi*, *embe*, *ambo*, *imbe* &c., *kabimbi*, *kambang*, &c.  
 b. Sunw. *charsye*, New. *chole*, Lep. *saar*, *sarchru*, Chepang *micha*,  
 Dhimal *eecha*, Songpu *zyu* (~indhi *chelo* Hind).

## 25 Hair.

- a. Lep. *aehom*, Mag. *chham*, Sunw. *chang*, New. *song*, Changlo  
*sham*, Manip. *sam*, *tham*, *kosen*, Bongju *som*, Kuk. *sum*, Burm. *chhan-*  
*bang*, Yuma *tsam*, *tsang*, *chang* &c., Toung-thu *athwon*. The Mon-  
 Anam *thwat*, *soh*, *tau*' is probably the same root.  
 Mong. *usun*, *usu*, chor-*chun*, Turk. *asim*. Ason.—Tobi *chim*.  
 (The numerous other affinities of Tobi, Pelew &c. with the Ultraindian  
 languages make it evident that *chim* is of Ultraindian origin and prob-  
 able that the Turkish form once existed in the Ultraindian province).  
 b. Kir. *moa*, Gur. *moi*. Chepang *min*, Dhimal *mui tu* (? Hind-  
*mu*), Bod *khanai*, khomon Garo *kaman*; Naga *min*, Burm. *chibing*.  
 c. Nag. *kho*, *ko*, [? Bod. *khanai*, *khoman*, Gar. *ka-man* ('head')].

## 26 Hand.

- Milch. *got*, *god*, (Changl. *godang*), Kir. *chuku-phe-ma*, ("foot" *shla-*  
*ro*), Limb *huk-taphe* (foot lang-*daphe*). Mag. *hut piak*, Chepang *kut-*  
*pa*, Nag. *chak*, *yak*, Manip. D. *kok*, *kut*, *hut* &c. Binua *kokut*, *kokot*.  
 A. Ugr. *kat*, *kata*, *kasi*, *ket*, *kit* &c. Sam. *hatte* &c. Indon. Europ. *hath*,  
*hand* &c.

## 27 Head.

- a. Lepch. *athiak*, Limb *thag-ek*, Kar. *tang*, Mur. *thobo*, Abor. *mi-*  
*tuk*, *tuku*, Nag. *tek*. Silong *atak*  
 Chin. *thau kha*. Sansk. *mastaka*, Zend *wedeg*. Af.—Tum. *adg-*  
 Ason.—Indon. *otak* &c.  
 b. New. *chhon*, Burm. *khong*. Nag. *khang*, *kho* &c., Gar. *dekam*, *shii-*  
*kam*, Jili *nggum*  
 c. Gar. *kra* Bod. *khoro*, Mish. *mkura* ("Hair," Tib. *kra*, Singph.  
*kara*).  
 d. Mag. *mitalu*, Manip. *lu*, *alu*.  
 e. Tiberk. *pisha*, Sunw. *piya*, Manip. *pi*, *api*, *chapi* &c.  
 Turk. *pash*.  
 f. Abor. *dum-pong*, Aka *dum-pa*. Singph. *bong*, Deor. Ch. *gubong*.

## 28 Hog.

- a. Murm. *dhwa*, *thua*, Kar. *tho*.  
 Korea *to*, *tot*, Ch. *tu*, *du*, Ug. *taa*, *tuwa*.  
 b. Gur. *titi*, Mish. *hali*.

30 *Horse*.

Milch. *rang*, New. *sala*, Chepang *serang*, Singp. *kamrang*, Burm. *mrang*, *myen*, Lungkhe *rang*, Kol *sadam*.

Ug *lo*, *lu*, *log*, ; Ason.—Indon. *jaran*, *jara*, *dala*, *ndala*, *nyarang*.

c. Mong. *Tangus*. Korea *mourin*, *moron* &c.

31 *House*.

a. Lepch *li* ; ? Manip *in*, Yuma *ing*. (Tib.)

b. Mur. *yum*, Manip. *yim*, A bor *ekum* (Tib.)

c. New. *chhen*, Manip. *sang*, Dhim. *cha*, Singpho *nta*, Manip *kat*, *shin* &c. (Tib.)

32 *Iron*.

a. Milch. *pron*, *rung*, *run*, Lepch. *panjing*, Limb *phenji*, Kir Mag. Chepang *phalam*, Murm *phai*, Gur *pai*, Sunw *wa akli*; Uraon *pauna*, Jili *taphi*, Singph *mpri*, Maram *kapha*.

b. New *na* (? Kas *nar*).

c. Lepch *pan jiang*, Nag *jian*, *jan*, *yin*, *yen*, &c. Deor Ch. *sung*, Burm *san*, *than*, Mishmi *si*, Manip *ntan*, *thin*, *tin*, *thir*, *thiar*, Aka *kakdhar*, Kumi *hadang* Dhim *chil*, Bod. *chur*, *chor*, Garo *shur*, *shil* Tangus *shelle*, *zhilla*, *solo* &c.

Af.—Suah. *chunga* Tigre *achin*.

33 *Leaf*.

a. Kir *ubava*, Sunw *sapha*, *nabar*, Nag *tawa* &c. Burm *rwak*, Lau *bai* (see M A)

b. Lepcha *lop*, Singph *lap*, Nag *nyap*, Tib. *lama*, Dhim *lava*.

c. Ahom *anne*, Naga *am*, Mishim *nab*, Manip *na*, *thina*, *panu*. &c.

34 *Light*.

a. Lep *aom*, Changlo *ngam*, Sunw. *hango*, Aka *hang* tepa Chep. *angha* (? Bhut *dam*),

b Lep. *achur*, Limb *thoru*, (? Bod. *churang*); (Tib. *kur* "wind", *achur* Mongol "air").

c. New *jala*, Murm. *ajalo*.

35 *Man*.

a. Lepch. *maro*, Kir. *mana*, New *mano*, Sunw. *mur*, Aka *bangne*, Mag. *bharmi*, Chep. *pur-si*. Is the *Mur* of Murmi not the same word? *mi* is Tibetan (Burm *lu*, Drav. Vind. *horo*, *ala male*, *oraon* &c.

Pashtu Sindh. *maru* &c. &c. a wide spread root.

b New *mijang* (masc) Dhim. *diang*, Changlo ? *songo*, Jili *nsang*, Naga *nye sung*, *mesung*, *sauniak*, Deor Ch. *mosi*, S Tangkh *pasa*, Kyé *mashi*.

Ug. *chum*, *hum*, Korea, *sana*, *shanen* Malay *jan-tan*.

36 *Monkey*.

a. Sunw. *moro* ("Man", *mur*) Mish. *tamm*.

b. Gur *timyu*, Chep. *yukh*, Burm. *myauk*, Yuma *yaung*, Manip. *yong*, *kozyong*, *nayong*, *hayong*, *ying khayog*, Dhim. *nhoga*.

38 *Mother.*

Aka *ane*, Abor. *nane*, Singph. *nu*, Nag. *anu*, *onu*, Manip. *anu*, *onu*, *noa*

40 *Mouth.*

a. Lep. *abong*, Abor-M. *napang*, *napung*, Nag. *teping*, *tabang*, Kum. *labaung*, Semitic *pam* &c.

Af Gal. *afan*, Dan. *afa*, Malag. *vava*. Ason.—*pang*, *ban*, *fafam*, *baba*, *fafa*, *fefa*.

b. Limb. *mura*, Mag. *nger*, Manip. *mamun*, *chamun*, *khomar*, *khamor*.

c. Kir. *doh*, Mar. *muthu*, Gond. *udi*, Murm. Gur. *sung*, Sunw. *so*, Chep. *mothong*, Newar *mhutu*, Kir. *doh* Gar. *hotong*, Nag. *tun*.

d. Changi. *noang*, Dhim. *nui*, Manip. *ania*.

41 *Moschito.*

a. Lep. *mang kang*, Nag. *mang-dong*, Manip. *kang*, *chakhang*, *ting-khang*, *tangkhang*, Burm. *khyeng khyen*, Yuma *kang*

b. Abor *sunngu*, Mish *todze*, Kar. *patso*, Manip. *kachang*, *sangsan*, *thangtan* *thangkran*, *karchi*, Bodo *tham-phor*.

c. Chep. *ya* Aka *Mish ia* Nag. *ayah*.

d. Changlo *binang*.

44 *Oil.*

Murm. *chigu*. Gur *chugu*, New *chikang*, Mag. *sidi*, Changi *si*, *men-si* Chep *sate* *Mish sua*, Burm. *achhi*. *shi*, *tsi*, Yuma *tsi*; Nag. *tauthi*, *totsu*, *kakizu*, Manip. *to-chai*, Dhim. *chuiti*, Bod. *thou*, Deor. *Ch. tu*, Manip. *to-chai*, *thau*, *thao*, Karen *tho*, *thu*, Bongju, *kersi*.

45 *Plantain.*

a. Lepch. *kar-dung* Singph. *lungei*.

b. Limb. *la seh'* Ker. *gnak si*, Murm. *mache*, Mag. *mocha*, Sunw. *mu-hi*, Chep. *maise*, Mish. *phaji*, Manip. *ngachang*, *ngashi*.

46 *River.*

a. New. *khusi*, Dhim. Garo. *chi*, Abor-M. *asie* ("Water".)

b. Mag. *khola*, Chep. *ghoro*, Kol. *gara*, Uraon. *khar*, Naga. *khar*, Sunw. *kha*, Kum. *ta-gha*

c. Bodo. *doi*, Manip. *duidai*, *tui-koak*, *tuthau*, *tu* (Water).

49 *Skin.*

a. Lep. *athun*.

b. Limb. *horik*, Garo. *holop*, Kol. *harta*, *ur*, Manip. *ohul*, *arhun*.

c. Murm. *di bhi* (Gur. *dhi*) Singph. *phi*.

50 *Sky.*

Lepch. *ta liang*, Sunw. *sarangi*, New. Mag. *sarag* Bod. *no khorang*, Abor. *taling*, Mish. *bra*, Nag. *rang-tung*; Male. *sarange*, (Day &c.,) *Bang. lang*, *lun*, *lungo* &c. is a wide spread root applied also to *air*,

*day, sun, God, Tib, Ugrian, African, Asonesian.* In the more radical form *la, ra*, it is still more common.

### 52 Star.

Changlo *murgeng*, Singp *sagan, sahan*, Manip *chagan*.

### 53 Stone

Milch. *rak, ru*, Tiberk *rah, galhing*, Him. *long, lung, lohong* &c. eom. (Tib *do*); Garo *lono*, Aka *elung* Abor *iking, ilung* Mish *mpla* Singph *nluu*, talong Nag *long* Manip *nung, lung, talo, thulung, ngalung*, Kum *lung, lum*, Car *long, lu*.

? Mong. *cholon, cholo* (ordinary form of Scythic *kual, kel* &c.) Sindh *rehan* Af.—Saum. *dugha, lugha* Galla *dunya, dana, daka* Amh. *denyya* Makna *mahuk*. Ason.—Mille *rahak*, Tasm. *loinai, loine*, Aust *walang*, *marama* &c.

### 54 Sun.

a. Abor *arung*, Nag *rang-han* (See *Sky*.)  
b. Bodo *shan*, Gar *san, ra-san*, Deor. Ch. *sank*, Nag. *san, rang han*, Singp *tsan*, Jili *katsan*, Kol. *singi*  
Tung. *shun*, Ug. *shundy* &c. Semitic *sham* &c. Indo-Eur. *sol, sun* &c.

### 55 Tiger.

a. Limb *keh va*, Kir *kiwa*, Dhim *khuna*, Nag *khru, kayi, takku*, akhu, Manip *kai, takhu, chakwi, kku-bui, akhu-li, sang-khu, sakwi, sakhuu*.  
b. Mag *ranghu*, Singph *sirong*.  
c. Sunw *gupsa*, Chep *ja*, Male *sad*, Nag. *sa, sahu, chianu*, Bod *mochā*, Garo *matsa*.  
d. Ab. *siniöh*, Aka *samya* Mish *tamya*.

### 57 Tree.

a. Lepch *kung*, Manip *thing-kung*, Kumi *akung, tagom*.  
Simang *kuing*.  
b. Tiberk *pong*, Bod *bona-phang*, Garo *pan*, Deor Ch. *popon*, Burm. *apong, open*, Singph *phun* Nag *bang, pan, pe*, Manip *thing-bang, sung-bang, hing-br* &c.  
Ug. *pu, pu, ta* &c. Sam *pu, pe, poi*, Tungus *mo, mo*, Pushu *wana*, Af. *vahad*. Ason.—*pon; puang; pohon, puna* &c.

### 58 Village.

a. Murm *namso*, Gur *nasa*, Nag *ha*.  
b. New. *gang*, Sunw *gaun*. Lhop. Lepch *kyong*. This vocable is widely spread in Ultratindia and Indonesia, but frequently applied to 'family', 'tribe' &c.

### 59 Water.

a. Kumi, Kyon *tui*, Kyan *tuwe*, Mrung *tei*, Lungk. *ti*, Rakh. *ri, re*, Kar *hi, hte*, Chep. Milch. *ti*, Magar *di*, Chang *ri* Murm. Kui *tui* [see T. U.]