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IN THE

INTERIOR OF CHINA.

By E. COLBORNE BABER,

CHINESE SECRETARY OF LEGATION, PEKING.

TRAVELS AND RESEARCHES

IN THE

INTERIOR OF CHINA.

By E. Colborne Baber, Chinese Secretary of Legation, Peking.*

I. A JOURNEY OF EXPLORATION IN WESTERN SSŬ-CH'UAN.

(Read at the Evening Meeting, June 13th, 1881.)

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1. On the Road to the Capital.

I passed under the western gate of Ch'ung-ch'ing on the morning of July 8th, 1877, full of the pleasurable anticipation which precedes a plunge into the unknown. The road from Ch'ung-ch'ing to the provincial capital had, it is true, been already trodden by more than one European; but beyond that point the whole of the western border, with slight exception, was untraversed. My project was, after reaching Ch'êng-tu, to make an excursion to the sacred mountain of Omi, and thence, travelling viâ Ya-chou, to descend into Yünnan by way of Chien-ch'ang—a route of which no account exists, except the short notes left us by Marco Polo. From Yünnan I intended to return by following as closely as possible the banks of the Upper Yangtzŭ. I was fortunate enough to complete the journey with no sort of serious difficulty and but little inconvenience.

A word or two with respect to transport may be useful. No traveller in Western China who possesses any sense of self-respect should journey without a sedan chair, not necessarily as a conveyance, but for the honour and glory of the thing. Unfurnished with this indispensable token of respectability, he is liable to be thrust aside on the highway, to be kept waiting at ferries, to be relegated to the worst inn's worst room, and generally to be treated with indignity or, what is sometimes worse, with familiarity, as a peddling footpad who, unable to gain a living in his own country, has come to subsist on China. A chair is far more effective than a passport. One may ride on pony-back, but a chair should be in attendance. I venture to attribute Baron v. Richthofen's

* With additional foôtnotes supplied by Colonel H. Yule, C.B., and Captain W. Gill, R.E. These notes are distinguished from those of Mr. Baber by the initials of their authors.

unlucky encounter on the pass above Ch'ing-ch'i Hsien partly to his having travelled without a chair; indeed, the natives told me that, seeing him ride about the country in what appeared to them a vague and purposeless manner, they imagined him to be a fugitive from some disastrous battle. A chair is, moreover, very useful as the safest vehicle for carrying instruments, and for stowing away all those numerous odds and ends which it is troublesome to unpack frequently from trunks. The mat cushions and arm-pillows with which it is furnished make the coolest and most comfortable bed which can be wished for in hot weather, when laid upon a couple of square tables or a stratum of planks. My coolies were hired by the month, at 300 cash—about tenpence—per diem for each man. The conventional stipulation is to pay only 100 cash on days when no travelling is done; but, as the weather was at its hottest and I did not intend to linger on the road, this clause was omitted. The traveller should have a written agreement made out, and should insist upon having a *fu-t'ou*, or head coolie, among his men, who will be responsible for their discipline.

The comfort and convenience of a traveller is very much at the mercy of these porters, more especially in the case of a foreigner. It is far preferable to engage them from a Fu-hong, an establishment licensed for the purpose by the local government. Coolies can be hired off the street more cheaply, but the traveller will possess little control over them. Each porter has to pay ten cash a day to the Fu-hong, which appoints a fu-t'ou to represent its authority *en route*, and to collect the percentage. The reason of this apparent extortion is that native officials travel free of expense for coolies and baggage animals, and the burden falls upon the Fu-hong, which has to supply them gratis. The percentage paid by every coolie—or rather, by every private traveller—is by way of providing for such contingencies, and of yielding beyond these a sufficient surplus for the keeper of the establishment. I engaged fifteen coolies, and was therefore paying about sixpence a day for the travelling expenses of native functionaries.

In addition to this levy by the manager of the Fu-hong, the fu-t'ou also collects a similar percentage for his own use and emolument. In return for this privilege he is expected to find substitutes for coolies who may fall sick on the road, to be responsible for losses and thefts, to watch the baggage during halts, and generally to maintain order and discipline. The western Chinese are a fair-dealing, justice-loving people, and the fu-t'ou is always a person of prominent honesty. When, therefore, an exorbitant demand has to be made, he invariably suborns one of his coolies to put it forward, and when the exaction is detected, he is the first to condemn the odious conduct of the extortioner.

Crossing the grave-covered hills outside the city, we soon reached the fortified post of Fu-t'ou-kuan, about four miles' distance, a remarkably picturesque knoll protecting the isthmus of the peninsula of rock

on which Ch'ung-ch'ing is built. So long as the encircling rivers are commanded, and this outpost is held, Ch'ung-ch'ing is secure from attack. Here the road divides, one branch leading to Pi-shan Hsien, and the other, which we were to follow, being the great highway through Western Ssŭ-ch'uan, and probably the finest road in China. For a few miles beyond it would be considered a handsome road in any country. Passing under numerous stone portals (*p'ai-lou* or *p'ai-fang*) of massive structure and elaborate carving, and paved with large sandstone slabs or cut through the solid rock, the avenue winds along between rows of huge commemorative tablets. These are monoliths rising in some cases 22 feet above ground, in proportion much like the larger masses of Stonehenge, and engraved with deeply cut characters. They are all more or less recent, as also are the p'ai-lous. The roadway may be said to be undergoing constant renewal wherever it is hewn in the rock, for many of the beggars, who abound near this point, are armed with iron-pointed sticks, with which they prod out an infinitesimal particle of rock while entreating the alms of passers.

Three days' journey of 17 or 18 miles each, carried us to Yung-ch'uan, the first city on the highroad to the capital, through a very broken country, crossed at intervals of about seven miles by ranges of 1000 feet or less elevation above the general level, which run approximately N.N.E. As seen from the road, the land is rather sparsely wooded with bamboo, cypress, oak (Ch'ing-kang), and with the wide-branching banyan, the only use of which seems to be to afford its invaluable shade to wayfarers. Cultivation is everywhere dense; indeed, with the exception of graves and the immediate neighbourhood of houses, and Government works such as the ancient walls which here and there close the approach to a pass over the hills, and the few slopes which are too steep for agriculture, every spot of ground is tilled, and most of it terraced. Not much store is set by the wheat crop, the Ssŭch'uanese being, at any rate in the southern districts, a rice-eating people. The rains are very irregular. The present year, however (1879), has returned a good rice crop, reputed to be nine-tenths of the best possible harvest; and my register shows that rain fell on ten days in April, eleven in May, thirteen in June, and seven in July. Success seems to depend chiefly upon a plentiful rainfall in June and fine weather in July, but in the early part of the latter month a moderate fall is desirable. Maize and millet have this year shown a deficiency of 50 per cent. below the assumed maximum, owing to the July dryness, but a failure of these crops, which are devoted principally to the distillation of spirits, is not a serious disaster. On the Tibetan border, but still on the great plateau, i.e. in the region of which Batang may be considered the centre, the rainy season is almost perfectly regular, extending from the beginning of June to the middle of August, the rest of the year being fine; and from what I can gather, this weather system impinges variably upon

Western Ssŭ-ch'uan, making July, which independently should be, perhaps, our dryest month in Ch'ung-ch'ing, a very untrustworthy season. Thus, in July 1878 rain fell on fifteen days. Famines of wide extent are not frequent in the province, but it is easy to gather from the gossip of country folk that local scarcity is neither unknown nor unexpected. It might be supposed that the numerous rivers which permeate the country between Ch'ung-ch'ing and the capital would be available for purposes of irrigation; but they pass through it without effectually watering it. There are few rivulets, and the surface is so irregularly worn down that there are almost no flat valleys; even level bottom lands of small extent are rarely met with. The fields, therefore, lie too high above the water-courses to be irrigated from them by means of the usual machines. The soil, again, is by no means rich, and is generally very shallow.

Nevertheless, the industrious and timely care of a numerous population has made the district the greenest of all Chinese hill-grounds. Without much claim to the grandeur of abruptness, although some of the ranges rise to 1500 feet above the hollows, the scenery possesses a tranquil charm too varied to be monotonous. The face of the country is all broken up into little nooks, amphitheatres, and dells, so that the road is always turning corners and winding into new prospects, and when it ascends a ridge it sometimes almost loses itself among shrubberies and plantations, which cut off the view of cultivation, and give a sudden impression of seclusion.

Besides the usual farm produce, and a good deal of opium, the district possesses mines of iron and coal. It is very possible that the latter may, before long, when steamers ply on the Upper Yahg-tzŭ, develop into an important source of trade. Even at present it is worked on a considerable scale in a range four or five miles west of a village named Ma-fang Bridge, which seems to be the centre of the coal trade, and to which the output is carried, among other modes of transport, on the backs of cattle shod with straw sandals. I was told that the principal mines are eight or ten in number, and that one of them keeps a hundred men at work day and night to draw the coal from the workings to the pit's mouth. Each man is said to bring away about a hundredweight ten times in the twenty-four hours, which would give 50 tons per diem for one pit, no small production for a Chinese mine. At Ma-fang Bridge the coal sells for 100 cash per cwt., but at the pits the same quantity may be had for 70 cash, or say five shillings a ton. A small river runs through the village, and will one day, it is to be hoped, float the coal down to the Yang-tzŭ. The range where the seam occurs is locally celebrated for its general productiveness; the natives are fond of impressing upon visitors the information that "coal grows inside it, and opium outside."

Another local lion is the bridge which gives its name to the village of Ma-fang. A really pleasing tradition is attached to this unpretending

arch, and is worth recording, if for no other reason than its novelty amid the odious bathos of stories about dragons and phœnixes which form the stock of Chinese folk-lore. The legend relates that when the bridge was completed, and the opening day dawned, a wedding procession escorting a newly-married bride happened to come down the road. It is a custom, or for the credit of the story is said to be a custom, that the person who first crosses a new bridge should be allowed the privilege of naming it; but in practice an official of all available distinction is induced to lend his presence for the occasion. On the day in question, however, the local magnate was not forthcoming, so the engineer, with phenomenal gallantry for a Chinaman, invited the bride to supply a name, which she did in an impromptu verse to this effect:—

"Across a new-made bridge to-day,
A new-made bride I take my way;
The bridge shall bear the bridal sign
And join my husband's name with mine."

The bride's name was "Fang," and the husband's "Ma," and the bridge is called Ma-fang Bridge to this day. The story obviously ought to be true, but, if it is not, the reason is that young Chinese ladies have neither permission, courage, nor ability, to pronounce themselves in such fashion.

We were to have lodged, the first night of our journey, in the large village of Pai-shih-yi, but at 10 P.M. the thermometer showed 93°, and in the crowded precincts of the inn 95°. Sleep being utterly out of question, I started again at 11 P.M., and walked on through the night, having been told of a high ridge, six or seven miles ahead, on the crest of which I hoped to find four or five degrees of lower temperature; but it was not until two o'clock in the morning that I neared its base, only to find it separated from me by a deep glen hidden in such trackless obscurity that it was impossible to find the way across. The night, though moonless, was astonishingly brilliant; Mars, Jupiter, and Saturn were all blazing simultaneously, and it was precisely this illumination which threw the hollow into so dense a shadow. The village of Tsou-ma-kang is built on the hither side of the glen, and I looked about for a spare corner of street to sleep on during the cool hour which precedes dawn; but the villagers, driven out of their houses by the heat, were lying naked on the pavement, and what was still more repulsive, they had lighted fires in the roadway to keep off mosquitos. It is odd how populous a village looks when all its inhabitants, or at any rate the male division, are spread out lengthwise on the streets. There was no help for it but to retrace a good deal of road in search of a clear spot on which to take a nap; and a proof of the density of cultivation in this part, which is one of the few flats, comparatively speaking, of Ssŭ-ch'uan, is that I spent a good half-hour in finding a bare space large enough to lie on. The roadway was not available,

for passengers were trooping along it pretty continuously. Hiring one of these to fan me, for my cavalcade had not come on, I slept until shortly after daybreak, and then crossed the glen, finding on the other side a cool hill-top crowned by an ancient fortification. Near the summit a fresh, clear stream, the only cold water in the country at such a season, issues from a spring and winds down the sward. Future travellers who may journey westward from Ch'ung-ch'ing in the summer, will do well to make this point their first stage.

Yung-ch'uan is a mere country town, possessing no manufacture except that of paper fans, for which it has gained a certain celebrity. A curious industry carried on in its vicinity is that of pickling frogs. The animals are captured by angling in the paddy-fields, and the hind legs are cut off, dried, salted, and sprinkled with chili pepper. Frogs are eaten pretty generally all over China, but I never before heard of this process of pickling.

As the river, which runs six miles or so beyond Yung-ch'uan, is neared, a belt of country of a more broken and irregular nature is entered. As above remarked the hill-systems of this part of the province run N.N.E. and S.S.W., but the general fall of level of the country is at right angles to this direction, and is followed by the rivers which pay their tribute to the Yangtzŭ. Such a condition compels the rivers to pierce or turn innumerable obstacles, and gives them very devious courses, which add greatly to the picturesqueness of the district. On the southern side of the Yangtzŭ much the same character prevails, with the exception that the general slope occurs in a converse sense, and is more severe, the level rising somewhat rapidly towards the border of Kuei-chou, and the mountains being much higher and strangely abrupt. And whereas the rivers on the left bank of the Yangtzŭ have overcome all obstacles with fair success, some of the streams on the other side have broken down altogether, and failed to make a passage. When a deadlock of this nature occurs the stream undermines the sandstone and disappears into a chasm to reissue, no doubt, further on. It seems evident that the hollows where this phenomenon occurs must have been lakes at no remote period; indeed, in many places they still form intermittent lakes, the access of water during the spring and early summer months being too great to find free exit through the tunnels. It thus happens every few years that productive rice-bottoms are inundated and yield nothing. The population of such valleys, which in favourable years are of course the most fertile, subscribe from time to time a good deal of money for schemes of drainage, but with very little effective result. This seems a point where the skill of European engineers might be introduced with certain and speedy advantage. A steam pump or two, or perhaps some adaptation of the siphon principle would easily drain off the greater part of such shallow overflows.

The river which the high road crosses by the Shuang-shih bridge a few miles beyond Yung-ch'uan, has an exceptional northern course, and winds delightfully along through a succession of wide pools, separated by beds of rocks and overhung by wooded cliffs. The bridge, evidently a structure of great age, which has undergone frequent restoration, is of a very primitive construction. Stone slabs piled rudely one on another form the piers, which support wooden beams laid across them. The foot-way is forty yards long, and is roofed throughout like all the wooden bridges of Ssŭ-ch'uan. It is surprising to meet with structures of this rudimentary nature in a province where stone is employed in huge masses with an apparent carelessness of expense, and which boasts the finest stone arches in China. In this instance the bridge is very ancient, and it has been found more convenient to repair it than to replace it; but the same style is still employed in cases where the timid Chinese mason considers the channel too broad for an arch.

A little conversation with natives soon satisfies the traveller that Ssŭ-ch'uan is practically a young province. They speak of K'ang-hsi and Kien-lung as monarchs of remote antiquity, and their chronology hardly reaches further back than the end of the Mings, about 1645. That the country was peopled, or more correctly speaking repeopled, in the early part of the present dynasty, is, however, an historical fact which does not require any additional proof. Some scant account of the anarchy which depopulated the province during the progress of the Tartar invasion will be found in the concluding chapters of De Mailla's 'History of China,' and is no doubt based on the experience of Jesuit missionaries who were in Ssŭ-ch'uan during the period described, for there is, of course, no Chinese history of the time. The most remarkable and ultimately almost the only figure in the story is a certain Chang Hsien-chung, who gained possession of the province in 1644 and proclaimed himself Emperor of the West in Ch'êng-tu. There is a difficulty in the way of understanding the policy of this ruler, which it is to be feared will always remain insuperable, for his simple mode of government was literally to condemn all his subjects to summary execution. I have collected from De Mailla the subjoined list of some of the reforms which the imperial nihilist introduced:—

Massacred.—32,310 undergraduates; 3000 eunuchs; 2000 of his own troops; 27,000 Buddhist priests; 600,000 inhabitants of Ch'êng-tu; 280 of his own concubines; 400,000 wives of his troops; everybody else in the province. *Destroyed.*—Every building in the province. *Burnt.*—Everything inflammable.

This programme appears to have been got through in about five years, 1644–1649. Many stories are current about this singular potentate; among others the following detail, not recounted by the historian, which occurred after the capture of Ch'êng-tu. By way of diverting his wife, to whom he seems to have been devotedly attached, he cut off the feet of the women who had been slaughtered and built three pagodas

with them. Unhappily his material was not quite sufficient to complete the third monument, and the artistic eye of his empress detected the lack of symmetry, whereupon the humorous monarch chopped off her feet and added them to the summit. Chang's hatred of the human race, and indeed of the whole animal kingdom of Ssŭ-ch'uan, is explained by the Chinese, not adequately, by his having inadvertently sat down upon a bed of nettles, a plant for which the province is famous. His whole story reads like an extravagant burlesque, but its general truth cannot be doubted. The Ssŭ-ch'uanese believe that very few of the natives survived, and when I protest that a good many must have been left, otherwise the Tartars, who are known to have slaughtered their hundreds of thousands, would have had nobody to massacre, they reply that the Tartars massacred the soldiers of Chang Hsien-chung. That devastator was the first of his army to fall by the Tartar arrow. He died a most heroic and glorious death, charging the whole Manchu host alone and almost unarmed.*

The present inhabitants of at any rate the southern part of the province are nearly all descendants of immigrants who came in under the present dynasty from the east. Most of them claim Hu-kuang as their fatherland, but near Jung-ch'ang Hsien I found a colony of immigrants from the Canton province, who profess to be able to speak Cantonese on occasion; but from their pronunciation of the numerals and a few other words it is clear that their progenitors were Hakkas. One of these colonists claimed my acquaintance on the ground that his cousin had visited England, but on examination it transpired that he had mistaken Shanghai for that country.

The market town of Yu-ting-p'u, reached by a steep approach 12 miles or so beyond Yung-ch'uan, deserves passing notice for the commercial importance of its central position between the three cities of Yung-ch'uan, Jung-ch'ang, and Ta-tsu Hsien. Its chief industry is the manufacture of agricultural implements from iron which is mined in its vicinity. The little town—for it deserves the name—is a good instance of the populousness of a province in which there are not a few villages rivalling the cities in extent and surpassing them in trade. So far as the country between Ch'ung-ch'ing and the capital is concerned, perhaps the most busy and peopled district is that which begins about this point and extends to the city of Tzu-chou; it is one of the least mountainous parts; it has good water communication by a commodious river and its affluents with Lu-chou, and consequently with the eastern provinces; and two specially important products, salt and grass-cloth, furnish staples for a thriving industry. Its agriculture, again, favoured by the comparative level, and in some degree by the exceptional possibility of irrigation from the river and its tributaries, is successful above the average, particularly in sugar. It is to the trade arising from these

* De Mailla, however, states that he was surprised during a reconnaissance.

sources that the existence of so many large villages is to be traced. Speaking broadly, the purely agricultural parts of Ssŭ-ch'uan are remarkable for the absence of villages properly so called. In the eastern provinces proprietors, tenants, and labourers, with a few shopkeepers and artisans, gather together, apparently for the sake of mutual protection, in an assemblage of houses surrounded by a mud wall, often at some distance from their fields. But in Ssŭ-ch'uan the farmer and his workpeople live, it may be said, invariably in farm-houses on their land, and the tendency is to the separation, rather than to the congregation, of dwellings. Thus when several sons divide an estate and their increasing families demand more house-room, they generally prefer to erect new houses on each separate inheritance, rather than, as in other provinces, to build close to the original family mansion, or to enlarge it. It thus results that the whole country is dotted over with cottages at a short distance from one another, picturesque and frequently spacious edifices composed of a strong timber frame filled up in the interstices with walls of stone below and mud above, and roofed evenly downwards from the ridge pole, with only a slight slope to broad eaves, which—without any upturn at the corners, such as the typical Chinese roof possesses—form a wide verandah. The resemblance which these dwellings bear to the old style of English houses has been noticed, I think, by Captain Blakiston, and, with the exception of the roof, which reminds one of a Swiss *châlet*, the similarity is striking in outward aspect; the wooden framework, black with seeming paint, shows out vividly on the whitewashed walls, and embowered as they generally are in a clump of greenery, the Ssŭ-ch'uan cottages convey a delusive impression of cleanliness, comfort, and neatness which it does not require a very close approach to dissipate. The hypothetical paint turns out to be grime, and the whitewash mostly efflorescence. Being, however, more spacious, they are probably more healthy than the crowded mud-huts of other provinces, and at any rate it must be an advantage to so filthy a people as the Chinese to live as far away from one another as possible.

Baron v. Richthofen, in drawing attention to this broadcast distribution of habitations, remarks that "people can live in this state of isolation and separation only where they expect peace, and profound peace is indeed the impression which Ssŭ-ch'uan prominently conveys." There is doubtless much truth in the observation; but the expectation of peace must have suffered many and grievous disappointments. Perhaps a more precise explanation is that the immigrants, refugees, and exiles—for tradition relates that people were sent in chains to colonise the province by K'ang-hsi—who came in from distant localities in the early days of the present dynasty, naturally built apart upon the lands which were allotted them, having in general few family ties which would induce them at the outset to build in communities, and, moreover, speaking

various dialects. No serious invasion occurred to modify this condition for nearly two centuries, until the Taiping outbreak made it necessary to unite for common safety. It is interesting to notice how this emergency was met by so scattered a population. They subscribed together and built stone walls round some convenient hill-top on which they took refuge at the approach of the rebels, leaving their lands and houses to be ravaged. But the separate system having now become established, it did not occur to them to build houses inside the walls; so that the fortifications remain uninhabited and isolated, and will doubtless so remain until the next invasion. They are very common on prominent heights, especially near the Yangtzŭ, and Captain Blakiston has indicated several of them on his chart under the name of "redoubts." The native name is *chai-tzu*, a word which has much the same meaning.

Another characteristic of the purely farm life, as distinguished from village life, of the agricultural population is the markets (*ch'ang*). These are generally long streets lining the main roads, consisting of shops owned by the farmers and let to traders on market-days, which fall on every third, fourth, or fifth day, as the case may be. These gatherings are the centres of news, gossip, official announcements, festivals, theatrical shows, and public, and even family meetings. If a bargain for the sale or renting of land has to be concluded, the matter is put off till market-day. If a marriage is to be negotiated by the heads of families, the high contracting parties go to market to draw up the preliminaries and to ratify the convention. All produce is disposed of at the same centre. The peddler, the barber, the blacksmith, and the tinker all repair thither, and it is there that the rustic makes his purchase of the longcloths and woollens of Europe and America. It will easily be understood that these fairs are very lively scenes on the days of meeting. They are indeed so thronged with traffickers and blocked with merchandise that it is difficult to make way through them.

A traveller ignorant of the system is exceedingly surprised to find, a few miles beyond so commercial a village, as it appears to him, another of equal or it may be of much greater extent utterly void of inhabitants. On inquiring the cause of its desertion he will be told that it is not market-day, and he will gradually come to understand that there are few villages in agricultural Ssŭ-ch'uan, but a great many market-places.

In manufacturing districts, however, the case is very different, and from Yu-ting-p'u forwards large villages are frequent.

On July 12th we passed through Jung-ch'ang Hsien. The public Examination Hall afforded us lodging during the breakfast hour. In a lumber-room behind the institution I discovered two wooden cannon which had evidently been discharged, though I was told that they were

loaded with gravel instead of shot. Each was seven feet long, the exterior diameter at the muzzle being about nine inches, and the bore four inches. They were circled with seven bands of hoop-iron less than one-eighth of an inch thick, the band round the muzzle being a little stouter, and, besides these, two strips of iron were laid in along the sides. From the muzzle to the vent, which was simply bored in the wood, measured about four feet, and the rear tapered away to a slightly curved tail. The whole affair weighed about 80 pounds. It was in the teeth of such war-engines that the Taipings, or their fellow marauders, got possession of the place.

The interior city seemed rather poor and dilapidated, but it contains a good many handsome shops. A large proportion of the citizens are of Cantonese descent. Starting again at 10 A.M. we passed through the suburb, more than a mile long, and suddenly came upon an affluent of the Lu-chou river. The stream is about 80 yards broad, with little current, and is crossed at the end of the suburb by a handsome stone bridge of six or seven arches, over which the high road passes. Instead of following it, however, we took boat and dropped down with the current some four or five miles, meeting a good deal of traffic, chiefly coal, bricks, and coffin-planks. But the principal industry of the place is grass-cloth (*ma-pu*), of which we noticed no small quantity laid out to bleach on the banks. Four miles or less from the city a ledge of rock, supporting a slab bridge of some forty arches, runs right across the stream, allowing exit to the water through one narrow opening between six and seven feet broad. All boats must, of course, be built by this inexorable measurement.

The thermometer here stood at 101° in the best shade I could find, but a more satisfactory exposure at 3 P.M. showed 98°. A child had died from the heat shortly before we arrived, its parents having brought it down to the river to cool it. Heat apoplexy, known in Ssŭ-ch'uan as *Lei ssu*, or death from exhaustion, is a common and well-known cause of death among the Chinese, and there is, in my poor opinion and experience, no reason to suppose that foreigners are more liable than natives to suffer from it. The latter, no doubt, resist exposure to the direct rays with greater impunity, but they are on the other hand less able to bear up against the weakening effects of a long period of exceptional heat, though relieved by the constant use of the fan and the habit of sleeping naked. The nightly attacks of musquitos are not a whit less formidable to the Chinaman than to the Englishman, and much severer cases of the inflammation known as prickly heat may be found among the Ssŭ-ch'uanese than among the European colonists of Hong Kong or Shanghai.

A native of Chekiang who was with us volunteered the information that in his province fatal cases of sunstroke are unknown, although people sometimes die of drinking cold water. In his opinion, the

Ssŭ-ch'uanese are more susceptible on account of the thinness of their skins.

Disembarking not far from the slab-bridge, we travelled five miles to the large village of Shao-chiu-fang, which owes its importance to a manufacture of pottery in terra-cotta introduced during the last six or seven years only. Our sole ambition was to make our way westward out of the heat, which rendered abhorrent all thought of visiting kilns and clay-works, but as we neared Li-shih-chên, another spacious and industrious village, 22 miles from our morning station, a cool breeze sprang up and depressed the thermometer to 86° at 9 P.M.

On July 13th a heavy fall of rain delayed our start until 8 A.M. Four miles brought us to Shih-yen-kai, a village lying on another small affluent of the Lu-chou river, crossed at this point by a stone bridge on piers which are carved to represent lions and elephants. The whole place resounded with the clang of smithies. I was told that the iron is not mined in the neighbourhood, but is brought from Lao-jên-shan, in the magistrature of Pi-shan, near Ch'ung-ch'ing. Five miles beyond Shih-yen-kai the affluent is again crossed at the gate of Lung-ch'ang, a Hsien city which is the centre of the grass-cloth (*ma-pu*) trade. There is a large export of this article to the eastern provinces, as it is both cheap and fashionable; but it is held much inferior to a similar fabric produced in Kiangsi, and is three or four times cheaper. The best quality I could obtain in the city cost me about sixpence a foot.

As far as Lung-ch'ang the road is excellent from a Chinese point of view, but beyond that it is in a very ruined and dislocated condition. Certainly no highway is so handsomely and expensively ornamented as this with stone portals (*p'ai-fang*). Most of them are erected by dutiful sons in honour of widowed mothers who have restrained themselves from contracting a second marriage. Perhaps the dread of a stepfather accounts in some degree for these pious dedications. Not a few commemorate the administrative virtues of some local official, but these are notoriously paid for in many cases by the official himself and by an interested claque. A third category is built in honour of centenarians, but these are as unauthentic as the others: a Chinaman's age increases very rapidly after seventy-five, and he becomes a hundred years old and upwards in about a decade. In a country where such passive virtues as widowhood, office-holding, and longevity are thus prominently distinguished, one would doubt whether more energetic civic qualities abound. However, the peculiarities of Chinese architecture and sculpture appear perhaps at their best in these monuments. The heavy curled roof is toned down, and the understructure is shapely and solid, so that they are mostly in very good preservation. With the exception of the human figures in relief, which, intentionally or not, all tend to the comic, the decorative details are pleasing. I noticed wall-spaces carved in imitation of basket-work with excellent effect, an idea suggested possibly by

the wattled walls of the poorer cottages or outhouses. All are built of stone; near Yung-ch'uan and Jung-ch'ang a dun-red sandstone predominates, and about Lung-ch'ang a warm and very agreeable cream-coloured variety. Inside the cities very ancient specimens, with the surface almost entirely peeled off, may be seen, and upon these the houses have gradually encroached, until they are now more than half built up. On the road, most of them are quite recent. The varying styles of p'ai-fang in different parts of China would make an interesting study, and it would be useful archæologically to discover and authenticate the earliest examples. It has been sought, without much justification, to connect them with the introduction of Buddhism; but I venture to think that they are nothing more than developments of the primitive monuments, of which the great triliths of Stonehenge are the type—two posts and a lintel. The Chinese have added a great deal of decoration, and an upper storey, and have protected the edifice with a roof; other modifications have inevitably ensued, according to the materials employed. Thus, in Peking, where wood is used in the construction, and beams of appropriate size are costly and rare, while tiles are easily made and greatly admired, the p'ai-fang is little more than a top-heavy roof perched on poles—a hideous object. In Yünnan Fu, pottery is largely introduced into the ornamentation, with a too gaudy and glaring result. But in Ssŭ-ch'uan the simplicity of the design is not sacrificed to details; colour is very seldom employed, and the whole structure is of stone; no roof is added to it, although the summit of the upper story often simulates a light roof and is carved to imitate tiles. That many of them are graceful and pleasing monuments may be accepted on the faith of Von Richthofen, who remarks:—"No traveller can help being struck with the great artistic perfection of the triumphal arches worked in red sandstone which abound in the country. . . . Some of them are masterpieces of Chinese art."

Two structures of characteristic style are met with throughout China, the pagoda and the p'ai-fang. The former, of which I shall have something to say further on, is probably of direct Indian origin, but with the exception of the remarkable Sanchi Tope, I do not know if there is any Indian exemplar of the p'ai-fang.* It seems to be peculiarly Chinese, and it may not be too credulous to expect that similar buildings or traces of them may be discovered in the ruined cities which are found, according to the reports of travellers, in the region beyond the north-west frontier, the supposed cradle of the Chinese family. If simplicity and grace at one end of a line, and grotesque degradation at the other, may be taken as showing the direction in which an artistic idea has travelled, the

* The *p'ai-fang* or *p'ai-lou* is the *toran* of India. Besides the stone examples at Sanchi another has since been found at Bharhut. The *toran* is represented in bas-reliefs (e. g. at Amaravati, see 'Tree and Serpent Worship,' 2nd. ed., pl. xcvi. fig. 3); and the thing itself, in its original timber form, is still used at Hindu weddings (see Fergusson, 'Ind. and Eastern Arch.,' p. 95; Cunningham's 'Stupa of Bharhut,' p. 8, and pl. iv.).—[H.Y.]

design of these portals must have been derived from a source which spread south-eastward across the provinces.

It would be a very interesting research to trace back the mention of the p'ai-fang to its earliest occurrence in Chinese literature. The second word of the compound seems to be used in an exceptional, or perhaps original, sense, and to mean mound.

Fourteen miles, more or less, beyond Jung-ch'ang we passed the village of Shuang-fêng-yi, where I was supposed to be the Roman Catholic Bishop of Ch'ung-ch'ing on his way to the capital, summoned thither by the Governor-General to answer for various crimes. On other occasions I was taken for a Miao-tzŭ chief, or a high dignitary of the Buddhist church. Captain Gill, I heard, had stopped near Lung-ch'ang to examine an exceptionally fine banyan, and with such baleful effect that, according to my informants, the tree fell down a few days after his departure. I have frequently been asked how many feet into the earth I could see. On the other hand, a Scotch missionary was accosted near Ch'êng-tu, and asked if it was true that all foreigners were blind. Native ignorance of anything extra-Chinese is so dense that it cannot be described; it can only be illustrated. I once stopped to inquire, in Chinese, of course, of two men who were hoeing a field, what was the purpose of a mound hard by. After listening with evident interest to my question, and without making any reply, one of them remarked to the other, "How much the language of these foreigners resembles ours!"

Eight miles further, we suddenly struck the main Lu-chou river, fully 200 yards broad, slow, shallow, and beset with sandbanks, and took boat at the busy little town of Pei-mu-chên, which may be considered the port of the city of Nei-chiang, some seven miles further on. Nei-chiang (meaning mid-river) lies near the neck of a peninsula, at the extremity of which, but on the other bank, Pei-mu-chên is built. Thus, after dropping a few miles down the stream, we landed, walked a few hundred yards, and again came upon the river at its upper curve. Just as we sighted the city, I observed near the bank a bamboo tube supported vertically 10 feet above the ground by a light scaffolding and stays of rope. Several low buildings surrounded the construction, and on entering I saw a strip of bamboo $1\frac{1}{2}$ inches broad by $\frac{1}{4}$ inch thick, issuing rapidly from the bowels of the earth through a hole, five inches broad, in a flagstone. The bamboo strip, joined to other strips by lashing, passed over a roller, and on following it into a shed, I found that it was being wound on a whim by a pair of buffaloes attached to the circumference. In a few minutes the connected strip, 260 feet long, had all issued from the hole, bringing up a bamboo pipe 50 feet long. When the bottom of the pipe rose clear of the ground a workman seized it, opened a valve in it, and several gallons of salt water shot out into a tub placed alongside. The end of the bamboo strip being fastened to the bottom of the pipe, or

bucket, as it may be called, could not of course support it vertically after it had cleared the mouth of the well from which it had brought up the brine; but it was kept erect by its top entering the stout tube, or guide, which had first caught my eye.

The buffaloes were then ungeared, the bucket dropped of itself at a great pace to the bottom of the well, where the brine pressed open the valve and again filled the bucket; the buffaloes were reattached and revolved in their orbit, and so the method of working brine-wells in Ssŭ-ch'uan was made clear.

The brine runs from the tub through pipes of the unfailing bamboo into pans, in which the salt is evaporated over coal-fires. The coal seemed very light, and is copiously watered to improve its effect. I could get nothing out of the valve-man, who was stone-deaf, and little more out of the buffalo-driver, in consequence of the noise of the revolving whim; but in the evening we found a merchant of Nei-chiang who owned a well at the great salt-works of Tzŭ-liu-ching, a long day's journey south-west of this, and who talked freely about his property and the method of working it. I need not repeat what Von Richthofen and Captain Gill have already written respecting the manner of boring the wells. The merchant bewailed the great expense he was put to for buffaloes; he keeps two hundred, costing about Tls. 40 (say 12*l.*) a head. The Tzŭ-liu-ching wells are worked at high pressure, the buffaloes being driven round at the best speed that can be got out of them. Only the most powerful beasts are suitable, and are fed at 300 cash (tenpence or a shilling) per diem. The buffalo suffers severely from the hot atmosphere and the unnatural haste; for although he can gallop at a good round pace under excitement, he is by nature a sober, sluggish animal, and is not happy without a cool bath twice a day. Consequently the poor beasts die off rapidly, and support a thriving trade in hides; much of the Ssŭ-ch'uan glue has the same origin.

Probably there is no Chinese industry to which steam-power could be applied with more immediate and obvious advantage than to the raising of brine from these wells. Those which I saw at Nei-chiang are not more than 300 feet deep, but at Tzŭ-liu-ching some are bored to more than 2000 feet. The gear which connects the revolving drum with the wheel over the well's mouth does not multiply speed, so that the buffaloes at each operation have to march or run the same distance as the depth of the well; hence they have to be driven fast to obtain a remunerative output, and "it is the pace that kills." Some adjustment by which they could pull harder, but travel slower, would be an advantage to all parties, but in any case the buffalo is very ill-suited to such work. The substitution of steam- for beef-power would not diminish the need for human labour; a man at the valve and another in the stable, with a boy to guide the buffaloes, are all that the present system requires for the mere raising of the brine, and as many, or more, would be employed if steam-

power were used, while the greatly increased outflow of brine would afford occupation for more hands in the evaporating shed. At Tzŭ-liu-ching the boilers could be heated by gas, the fuel by which the evaporation is now effected.

The boiling-pans are five or six inches thick, and weigh some 16 cwt. apiece; few of them last longer than a year, since the salt has to be evaporated to dryness, and the fire soon burns or cracks them. They are cast in various places, but chiefly in the neighbourhood of Lu-chou, and are not sold, but let, to the salt-workers, who, as the odd trade-technicality puts it, "buy the pan without the iron" ("Mai kuo, pu mai t'ieh"). When a pan is burnt through it reverts to the foundry proprietors, who recast and relet it. The hire under these conditions is forty or fifty taels, carriage expenses being borne by the hirer.

The Nei-chiang salt-production is comparatively unimportant, and there is no gas. The most noticeable industry of the district is perhaps sugar, the cultivation of which begins somewhere near this point, and follows the valley of the Lu-chou river down to the Yangtzŭ. On the latter stream the cane is grown thickly from P'ing-shan Hsien, the limiting point, to Ch'ung-ch'ing, or even further down. But the importance of Nei-chiang depends principally upon its advantageous river communication. Junks of large capacity easily ascend thus far with full cargoes of cotton, which is here disembarked and distributed over a wide district.

Our journey on the 15th led us through a most luxuriant valley to the city of Tzŭ-chou, still following the river and crossing it just before entering the city. At the ferry we poled out to a depth of 12 feet, and then took to our oars to cross the channel. Small steamers could in all probability reach this place at any season, but a long though not violent rapid, and a wide stretch of shingle-beds and reed-flats, do not afford good promise of a higher ascent unless during floods, when the water sometimes rises 20 feet above its mean level. Between the two cities the river is about 200 yards broad. Tzŭ-chou is about 24 miles from Nei-chiang; the pleasantest part of the stage is near Yin-shang-chên, a large village somewhat more than half-way, where the road, carried along a rock-terrace which overlooks the river, passes through groves of a well-kept and park-like appearance. This seemingly artificial neatness is frequently met with where Ssŭ-ch'uan roads cut through a steep hill-side.

Tzŭ-chou is a clean and substantially built town, possessing no special commercial significance. Beyond it we entered a district where no rain had fallen for forty days, except in a few light showers, although further south there had been an exceptionally copious fall. The crops were in a pitiful condition; millet seemed to suffer most, but the paddy, which, as it requires irrigation, one would expect to be the first to succumb, seemed capable of holding out longest of all, although the fields were as dry as

the sandstone road. Little or no work could be done, and the natives seemed to be keeping holiday: even in the smallest market-villages theatrical performances were being exhibited, gaudy processions wound among the slopes, and the parched fields were gay with banners; but this display was no merry-making: its purpose was to propitiate the spirits and to avert the calamity of famine. During the day's march I observed that about half the millet was dead, that the people were pulling up the maize, and that the cost of rice had risen in four days from eight cash a bowl to twelve cash; yet the country folk, though anxious, seemed by no means depressed, and I was told that even if the crops in this neighbourhood fail altogether, other parts of the province are sure to be productive, and there is no danger of starvation.

Ssŭ-ch'uan manners are easy and simple, and when no convenient roadside hostel was near and the breakfast hour approached, we used to enter the most commodious cottage, and spread our frugal meal there as a matter of course. Sometimes we took possession of an empty house, the family having gone to market or to the fields. We were generally received with a frank welcome, but the fear of officialdom is so strong that the arrival of my sedan-chair was apt to cause uneasiness, from a suspicion that I was a military commander with a tendency to make requisitions. In such circumstances, I would open conversation by inquiring how far it was to the nearest inn, and would find an opportunity of explaining indirectly that I had brought provisions with me and wanted nothing but fire and water; by which time my servant would have made some progress into the good graces of the inmates by a few unobtrusive salutations and compliments, and by purchasing half-a-dozen eggs or a fowl with the readiest money. By some such diplomacy we always gained free approach and fair accommodation. A good way is to pick up a guide (a small boy is preferable) before arriving at a village, and to treat him unusually and unexpectedly well. Another plan in doubtful cases is to make no show of being hungry, but to sit down and smoke, buying something casually and paying for it after a little bargaining, which has a good effect, and then on second thoughts conceiving the idea of breakfasting. Many such devices occur according to cases, but in general there is no difficulty in gaining the villagers' confidence. We breakfasted to-day among a bevy of countrywomen, wedded and single, who were engaged in spinning cotton, arranging the threads for the looms, of which two were in operation, and preparing the vermicelli called *kua-mien*. In one corner was a buffalo lazily turning a mill, and in another a labourer working a noisy winnowing box with a treadle. Three children, each about three years old, were enjoying the freedom of the floor and the society of the cocks and hens and a pig, and, though unweaned, took very kindly to the cakes we had brought from Ch'ung-ch'ing. Some children, by the way, are not weaned until the age of five years or more. Customers entered from time to time to buy the

kua-mien, our coolies came and went just as they pleased, our cooking was conducted in a corner, and beyond a few questions prompted by courtesy or curiosity, nothing interrupted our repast or the day's routine of the cottagers. All this went on in the same apartment, half room, half court, about 35 feet square. Suddenly the sound of a gong and a bell is heard outside, and everybody runs to the door, to see a procession of nearly naked youths carrying poles with some green plant tied to the tips, headed by the gong-man, who is a village elder, and a youngster with the bell. A standard-bearer with a gay paper banner brings up the rear of the procession, which marches sedately down the little street on its way to perambulate the droughty fields, in hope to induce the local genii to grant a fall of rain. The officials of the district are everywhere conducting the regulation rites for the same end, and as they will continue the ceremonies until the rain responds, they will persuade themselves that their entreaties have prevailed.

Pai Fo Ssŭ—"white Buddha shrine"—a temple 20 miles, or less, distant from Tzŭ-chou, received us for the night, and turned out to be a place of unusual interest. Vague accounts have from time to time been published of a Chinese sect who worship a deity called Tamo and regard the cross as a religious symbol, a story which has led the Roman Catholic missionaries to identify Tamo with St. Thomas, and to accept as proved the tradition that the Apostle made a voyage to China. On the other hand, the Tamo of Buddhism is, if I am not mistaken, a well-authenticated patriarch who came to China in the sixth century. It was,

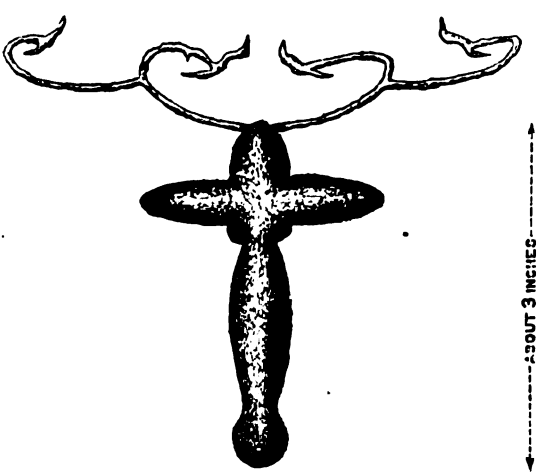

FIG. 1.

therefore, very curious to discover in this temple a graven image of the apostle, whether of Christianity or of Buddhism, depicting him with very marked Hindu features, a black complexion, and with a Latin

cross on his breast. I append a rough sketch (Fig. 1) of the symbol, which in the original is carved in relief and coloured red. Images of Tamo are numerous in Ssŭ-ch'uan temples, and he is nearly always—I think I may venture to say always—represented with black or very dark features. I have never heard of any other case of a cross being attached to his effigy.

The sketch (Fig. 2) represents a stone pillar, one of a large number of similar objects which are met with at the foot of the low hill on which the temple is built. They appear to have no connection with Tamo or the temple, but to belong to a separate cult. They are votive offerings dedicated to the tutelary genius of the spot, in recognition or in hope of a favourable response to prayers for fruitful marriage. Archæologists will probably see in them a widespread symbol of Nature-worship. They are composed of an upright stone pillar, from three to eight feet high, which transfixes a square slab, the whole being carved in sandstone. About thirty of them stand in couples in a confused clump on the roadside, all more or less chipped and fractured, and on the smooth face of a low sandstone cliff a great number—I counted more than two hundred—are seen carved in low relief, also in pairs. The bas-reliefs are of unknown antiquity, but some of the roadside pillars, though much dilapidated, seem comparatively recent. The votive purpose for which they are erected is familiar to the people of the neighbourhood. I was informed that they are called masts, or poles (*wei-kan*); but when I ventured to ask what connection exists between masts and a flourishing progeny, no one could explain the relation or, indeed, showed any interest in the subject.

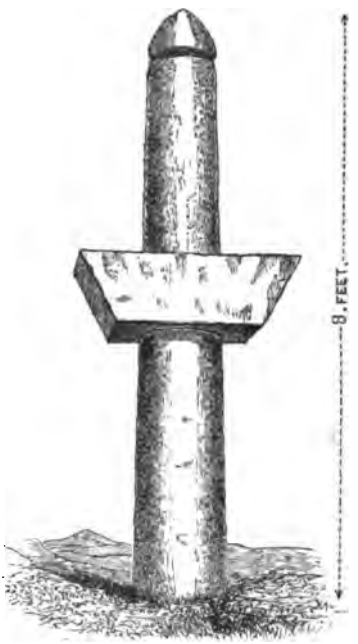

FIG. 2.

What is the meaning of the two masts which are set up beside the door of every official residence in China? They are generally assumed to be flagstaves, but I have never seen a flag exhibited, and they are unprovided with halliards. And what is the purpose of the transfixed piece which these poles carry? It is imagined to be a "top"—like the "main top" or "fore top"—but it has no such use, and is altogether too frail; moreover, there may be one, two, or three tops, according to the rank of the resident official, without any relation to the height or structure of the mast. The supposed top is named by the Chinese

tou, meaning a bushel, a measure of grain, where the allusion to fertility is obvious. Furthermore, I have seen cases where the mast is built up of stone. The official masts resemble the Pai-fo-ssŭ pillars in all respects except size, and the variations necessitated by their construction in wood. The cone on the mast-head survives, and the *tou* retains invariably the shape of the cross-slab in the sketch, but being made of wood is, for economy's sake, put together in open framework. The Chinese can explain neither the origin of these official poles nor their use, merely asserting that it is an immemorial custom to set them up outside public buildings.

Near the summit of the hill at the foot of which these sculptures are found I came upon several ancient tombs, of which all that the natives could tell me was that nobody knows anything about them. They are nearly covered by the present cultivation. Each construction contains half-a-dozen or more sepulchral chambers built side by side, and along the front runs a gallery on which they all enter. The whole system, including the gallery, is roofed, panelled, and floored with large stone slabs, perhaps six feet by three, though some are larger, put together with much accuracy and skill; the rock seems to have been first excavated, not as a foundation, but so to speak, as a receptacle, of which the slabs form the lining. The chambers are high enough for a man of average size to stand upright in (say five feet eight), and four or more broad, by some eight feet in length. The gallery is a little higher, and is entered with difficulty from the outside by low, square ports, which seem to have been originally closed. The tombs now contain nothing but a few human bones and fragments of pottery, which are as likely to be fresh as ancient, since modern beggars live and die in such places wherever the landlord's indulgence or negligence allows. Immediately outside the walls of Ch'ung-ch'ing there are many ruined tombs of a somewhat similar style, the latest bearing dates of the Ming dynasty.

On the 17th, after passing the market of Nan-ching-i, which is eight miles from the temple, we saw, four miles further on, what is a rare sight in China—a pagoda in course of construction. Five stages were already completed, reaching a height of 60 Chinese feet, the lowermost story being of stone and solid, i. e. without any hollow interior space, and having a base of 11 yards square. The second story, of brick, was octagonal externally and circular inside, the thinnest part of the wall measuring eight feet through. The third story was in the same style, but the fourth and remaining stages were octagonal inside and out, and the rest of the tower was to be completed on the same plan to a total height of 130 feet. A very frail segmental scaffolding outside enabled the builders to raise their materials, but access could also be gained by ladders placed inside. There seemed to be no scamping of work, and although the tower was to have been finished from foundation to spire

in six months, the bricklayers were proceeding very leisurely and intermittently with their business. The bricks were in course of manufacture in sheds below, and the stone had been quarried from the base of the hill. The estimated cost of the monument was given me by several independent informants at between thirty and forty thousand taels, equal to about 10,000*l.*, which, as the solid contents may be approximately calculated at about 50,000 cubic feet, gives the heavy rate of one pound sterling per five feet. But it is notorious that if these pagodas are built for any other purpose than the benign geomantic influence which they shed over the countryside, it is for the advantages which they bring to local committees of construction.

A population which subscribes for such costly and unproductive works must be fairly well-to-do; but, perhaps, a more convincing proof of affluence is found in the numerous bridges of the province, massive and even luxurious causeways, which would fully satisfy the sense of symmetry were it not for some defect in the curve of the arches. These appear at first sight circular, but on a nearer approach a tendency to a point is noticed, not decided enough to be pleasing, and yet quite sufficient to afflict the jaded traveller with the uneasy feeling that the architect was not sure whether his arch would turn out to be pointed or circular, and had left it to take its chance. The want of a prominent keystone increases the unpleasantness, the vertex being defined by the division between two voussoirs. These bridges are, however, very solidly and truly built, and are far superior to anything of the kind in Eastern China.

After a day's journey of some 17 miles, we once more crossed the Lu-chou river, and entered Tzŭ-yang Hsien. The channel is here about 150 yards broad, and admits junks of large size—say of sixty or seventy tons. The place has no special importance. Chien Chou, a larger city than any we had yet passed, about 24 miles farther, lies in a small plain on the river bank at the mouth of an affluent. Five minutes before reaching its gate we espied a temple of unusual appearance, and strolled into its court sure of finding something new or curious; but it turned out to be, not a temple, but a very ancient pagoda surrounded by low buildings. The pagodas with which Europeans are familiar are polygonal in plan, and generally built of stone; but in this province the older examples are square, and, what is singular in a country where stone is so extensively used, are of brick, coated with a durable white plaster, the well-known *chunam*. As one journeys across China the gradual change in style of these picturesque towers is very striking. In the typical pagoda of the south-eastern provinces the successive stages decrease both in height and diameter; but as the Ssŭ-ch'uan border is passed cases begin to occur in which the fifth or sixth stories are of the same breadth, or as it seems, of even a greater breadth, than the base, so that the outline of a side of the building, that is to say its profile,

resembles the arc of a bent bow when held with the string vertical. Still further west, as in the country we have reached, the old pagodas are square, and their upper stages are generally of very little height. In this Chien Chou pagoda each of the four faces are slightly concave; it is built of chunamed brick; the stories have imitation doors and round windows, and the cornices which divide story from story are not prominent, so that were it not for the suddenly pointed summit it might almost be taken for an English church-tower. It is very unlike the common idea of a pagoda, and yet it is a most authentic pagoda and a very old one, for high up on its eastern face, above a bas-relief of Buddha, is the inscription "Shih-kia-mu-ni Shê-li pao-t'a" (Buddha Shê-li Pagoda). What is Shê-li? I appealed to the attendant priest, who is attached to the place, for information. "A Shê-li," he replied, "is a particle of the essence of Buddha, having no special shape, colour, or substance, but in general it is a minute speck resembling a morsel of crystal, and giving off intense light. Its size may however change infinitely, and it is impossible to set limits to it. An iron chest cannot confine it in the custody of unbelievers, and its radiance on occasion pierces everything, so that there is no concealing it." Much more such like definition was offered me, which might have been credible if one could have understood it. But I have a reminiscence which almost amounts to a sure recollection that Shê-li is a transliteration of some Sanscrit word meaning *relic;** in which case the inscription indicates that the pagoda contains a relic of Buddha, doubtless a particle of his ashes brought from India by a pilgrim. The extant journals of Fa-hsien, Hsüan-chuang, and others show that one purpose of their visits to India was to obtain relics (probably the term they employ is Shê-li, but I have no opportunity of examining any of their accounts); and here is a fairly authentic instance of the way in which they disposed of their collections.

Eight of the thirteen stories of this pagoda are ascended by an interior staircase, the walls of which are painted throughout with pictures of Buddhist saints and worthies, much in the style of the ruined Burmese temples at Pagán. The priest had no knowledge of the date of the building, and affirmed that there was no means of knowing it. I inquired somewhat deeply into this question, even sending to the prefect of the city to ask his opinion, but he replied that the date could not be ascertained. He himself evidently took no superficial interest in the antiquities of his jurisdiction, for he sent me a rubbing of an inscription which I met with on a singular object lying in the court below the pagoda.

* This is correct. The Sanskrit word is *sarira*, properly "the body," and used by the Buddhists for "relic" (see, for instance, Hardy's 'Eastern Monachism,' p. 212). Of the Sanskrit word the Chinese have made *she-li*, and the Tibetans *sharil*. The latter word occurs several times in Ssanang Ssetzen's 'Mongol Legends,' see Schmidt's transl., p. 249, &c.—[H. Y.]

It is not easy to describe it. Take a well-developed pear and cut it through its thickest part at right angles to its length; in other words cut off its top, then lay it, with the cut surface downwards, on a small book, but the book must be square. Assume the pear to be 2½ feet in diameter, and a little more in height, and to form with the book a solid mass of cast iron. Call this a "Shou-shan," or "Mount of Longevity." This forms the lower part of the machine. For the upper part imagine a coffee-cup without a handle, and solid, also of cast iron, two feet eight inches in diameter, with a spheroidal hollow in its base which fits on to the tail-end of the pear. Call this a "Fu-hai," or "Sea of Felicity." On the face of the coffee-cup, which, as I have said, is solid, as if it were full of coffee and the coffee frozen, are two oblong hollows, as if intended for the insertion of the ends of beams, and at one shorter side of each of these is an oval boss an inch or so in prominence. On the outside again, just below the rim of the cup, are eight shallow hollows which, if they were deeper, would give one the impression that they might have been meant for the insertion of capstan-bars; but although their edges are slightly raised no such supposition can be based on them, their depth not being more than two inches below the level of the circumference. The appended sketches (Figs. 3, 4, 5) will perhaps

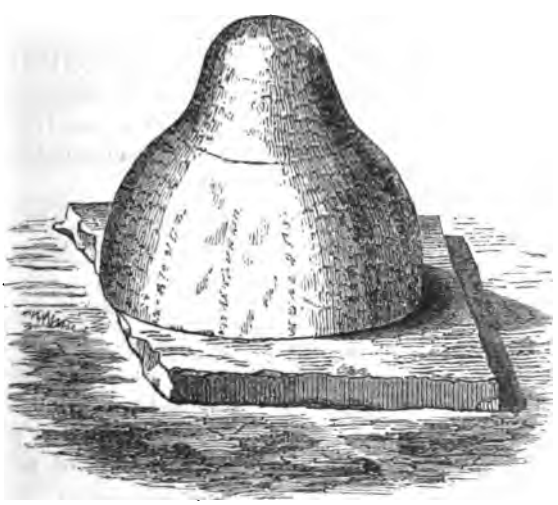

FIG. 3.—A MOUNT OF LONGEVITY.

assist this description. The two portions lie a few yards apart on the grass in the open court. The base is a good deal damaged. The upper piece bears in large characters the Buddhist formula "Continually turn the wheel of law for the calm repose of the universe," and on the lower piece is an inscription recording the names of the donors and the date of the mysterious implement, to the following effect:—

"Certain devout persons living in Little West Street in the Yang-an Magistracy, Chien-chou [here follow the names of the contributors] have given alms for the purpose of casting a Longæval Mount and

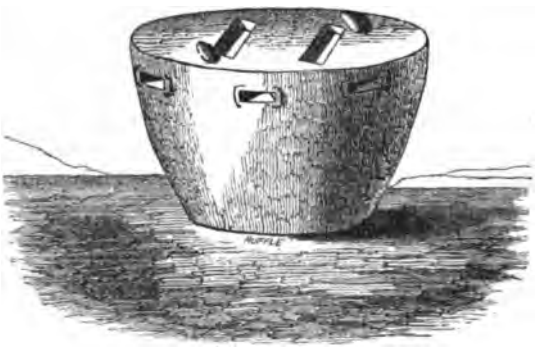

FIG. 4.—A SEA OF FELICITY.

Felicitous Sea for the temple [or temples] of Heavenly Calm and Everlasting Contemplation, so that the wheel may be turned and [two characters are here worn down and illegible] prayers for long life and flourishing posterity.

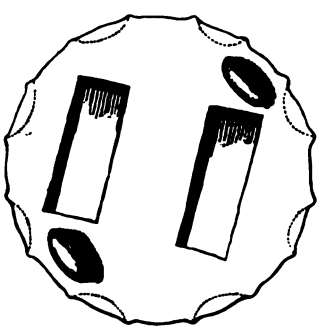

FIG. 5.—PLAN OF THE FACE OF THE SEA OF FELICITY.

"Carefully recorded in the 12th month of the second year of Chien-yen, the cyclic term being Shên-wu [A.D. 1128].

"Hsi-kuang, head-priest, missionary, and Shaman.

"Constructed by Ying Chih-li, foundry master, of Han Chou (a quarter of Ch'êng-tu)."

The Emperor Chien-yen, mentioned in this inscription, is renowned in Chinese history for his Buddhist proclivities. For several years before his accession the Golden Tartars had ravaged the northern provinces, and about, or a few years previous to, the date in question had made themselves masters of all Northern China *except Ssŭ-ch'uan*, and perhaps Shensi. Chien-yen only retained power over the country south of the Yangtse, establishing his court at Nanking, and subsequently in other neighbouring cities. The monument above described shows from the style of its date that the authority of the Golden Horde * was not yet acknowledged in Ssŭ-ch'uan, and thus supports the historical account. Ssŭ-ch'uan was finally conquered some

* *Golden Horde* is generally appropriated to the Mongol dynasty that reigned on the Volga; though the dynasty meant here, which reigned in North China before the Mongol rise, was called also *Kin* or "Golden."—[H. Y.]

130 years afterwards, probably not long before the visit of Marco Polo to the province, and, as usual, all the inhabitants of the capital were massacred.

The base also contains a modern, or at any rate a subsequent, inscription which, as it was getting dark, I could not decipher. The priest, on being consulted as to the use of the machine, told me that it was a pivot, and that on fitting a statue of Buddha to the orifices in its upper surface, and inserting spokes in the eight circumferential cavities, it will miraculously revolve of itself, and indicate the elect among the attendant worshippers. He admitted, however, that he knew very little about its adjustment, and I am disposed to believe him. The most probable solution seems to be that it formed the centre of a wheel, a materialisation of the Buddhist metaphor "wheel of the Law," or "Religion," more or less resembling the so-called praying machines common in Tibet. It must almost certainly have been a pivot, although it is very ill adapted mechanically for such a purpose, and moreover the boss shows no traces of striation. But then it may have been a failure, or no opportunity may have occurred for putting it in use.*

On leaving the city the road crossed an affluent of the Lu-chou river by a bridge 76 yards long, built partly on arches and partly on beams of the *nan-mu* tree. On the footway lie two trunks of this tree, intended for repairs, the larger being 48 feet long, 18 inches in diameter at the thin end, and 32 inches at the butt. The city is environed by fine temples and a most luxuriant cultivation, through which the river winds, 200 yards broad, but full of sand-banks and shoals. Nevertheless a good many large flat boats were coming down. Seventeen miles further the last belt of hills between Ch'ung-ch'ing and the capital has to be crossed. On the highest point of the road, at the foot of a tablet inscribed with the words "Here you are near heaven," I calculated the height above Ch'ung-ch'ing to be 2400 feet, or about 3200 feet above sea-level. The view from near this point is very extensive and striking, the broken country to the east, through part of which we had come, resembling a stormy sea, and the red colour of the soil and exposed rocks mingling in about equal proportion with the green of crops and groves; while on the west, some 1500 feet below, the great Ch'êng-tu plain stretches like a smooth lake and is everywhere covered

* There can be little doubt that the apparatus had been intended for a pivot, or part of the machinery of a revolving pagoda. Hwen T'sang obscurely describes such a revolving cupola over an image of Buddha in the valley of the Upper Oxus ('Pèlerins Boud.,' iv. p. 205). And the envoys of Shah Rukh to China (1420) describe a remarkable structure of the same kind at Kan-chau (in Kan-su Province). This was in the form of an octagonal kiosque fifteen stories high, made of wood and gilt; it revolved on a pivot (see 'Cathay and the Way Thither,' p. cciv.). It is possible that this was a colossal and elaborate form of prayer-cylinder. There is said to be such a cylinder in one of the Lama temples at Peking, which extends through the successive stories of the building to a height of some 70 feet (see A. Williamson, 'Journeys,' &c., ii. p. 346).—[H. Y.]

with a verdure which would be monotonous were it not for the variety of shades.

The plateau on this hill range, contrary to the general condition of Ssŭ-ch'uan plateaus, is but thinly inhabited, but the country near it on both sides teems with villages. The Ch'êng-tu plain, indeed, probably supports as close a population as the most crowded parts of the seaboard. Seven-tenths of the natives at least are of the poorest class, living from hand to mouth, and beggars abound. We had evidence of the difficulty of obtaining employment in the eagerness with which the people touted for the task of carrying my baggage. Out of their slender wage my coolies subhired temporary substitutes at the rate of two cash per *li*, or a penny for four miles. The poorest classes are of course at once affected by a drought, since no work can be done in a hard baked soil. To-day, however, the raggedest were gay, for a fall of rain had set in with good promise of duration. The simple folk sat under shelter and watched the downpour with delighted eyes and admiration of the skilful officials whose prayers had proved so irresistible. The theme of the weather is never tiresome here, but one must not speak disrespectfully of it; the public are warned by proclamation not to provoke the wrath of heaven by complaining of drought.

Ch'êng-tu, which we reached on the 20th, is about 15 miles from the foot of the range. Enough has been written about it by previous visitors to render any description of mine, superficial as it would be, unnecessary. To the traveller who could afford sufficient time to examine leisurely its antiquities and temples it would assuredly afford results of great interest. It is one of the largest of Chinese cities, having a circuit of about 12 miles, and although it contains a good many open spaces and temples with attached grounds, it may be considered well populated. The census of 1877 returned the number of families at about 70,000, and the total population at 330,000—190,000 being males and 140,000 females; but probably the extensive suburb was not included in the enumeration. Perhaps 350,000 would be a fair total estimate.* Its principal trade is in the numerous wild products of Tibet and Koko-nor—furs, rhubarb, musk, medicines, &c., which it purchases with the tea, silk, and cotton cloth of Ssŭ-ch'uan. All Tibetan countries are more or less directly administered or coerced from Ch'êng-tu by the Governor-General; and even distant Nepaul, known colloquially to the Ssŭ-ch'uanese as the country of the "Pi-pêng," sends a decennial mission of tribute, which is permitted or forbidden to proceed to Peking much at the Governor-General's discretion. It is no doubt owing to its proximity to the frontier that the

* For Ch'ung-ch'ing the result of the above-mentioned census was:—

Total population	120,676
Males	75,226
Females	45,450
Number of families	28,117

city is provided with a Tartar garrison, now become undistinguishable from the indigenous citizens. The fiction of a difference of language is, however, maintained, as may be noticed in the case of shop-signs, many of which are still written in Manchu. Ch'êng-tu claims an historical celebrity as having been the capital of the famous Liu-pei, and some vestiges of the palace which he built about 222 A.D. are said still to exist on the site of the present Examination Hall. The tradition that his palace occupied that spot is at any rate not open to reasonable doubt. The reputed tomb of his friend Chu-ko Liang, known otherwise as K'ung-ming—the most popular name in Western China, and the centre of many legends—lies somewhere outside the south wall.*

I had only time to visit one monument, but perhaps the most curious and the least known. A short distance from the North Gate, in the north-west quarter of the city, is an earthwork composed of two mounds some 40 feet high, and 50 feet broad at the top, distant from one another 120 feet, and connected by a lower terrace of about half the height and 70 feet broad. The whole work has the shape of a dumbbell half buried in the ground. Its direction is roughly north-west and south-east. On the south-eastern summit lies the singular object which I had been led to look for, and which had been described truly enough, though vaguely, as a large round white stone. It turned out to be a disc or cylinder of very hard limestone (silicate of lime) of enormous proportions, measuring approximately 18 feet in diameter. It seems to have slipped a few feet down the slope of the mound, and I cannot be altogether sure that its circle is complete, since more than half of it is hidden by superincumbent soil. Nor could I estimate its thickness, of which only 2½ feet are above ground. The surface of the monolith is a good deal worn and fractured, but the true circular form of the circumference is evident to the merest glance, as also is the perpendicularity of the rim to the face. The whole mass might probably be cleared of earth in an hour or two, but as the bystanders told me that any attempt to dig would cause the sky to darken and goblins to appear, I did not think it well to indulge a too intrusive curiosity. I could not find any indication of a similar object on the north-west mound, although analogy would lead one to suspect its presence, buried perhaps in the earth, as seems to have been the case with the extant stone. This huge grave-slab, for such it must almost certainly have been, is known locally as the Quern Stone (*Mo-p'an-shih*, meaning the bed-stone of a quern), and is said to have been brought from Han-chung Fu in Shensi. The mound is called Wu-t'ai Shan (Military Terrace Hill), and tradition makes it the burial-place of an emperor's son—what emperor I could not ascertain.† A Taot'ai of the

* At the temple called Wu-Hou-Tz'ŭ. See 'River of Golden Sand,' ii. p. 18.—[W. G.]

† The explanation given to me was that this was the grave of a concubine of the aboriginal king Shu-Wang, who lived in the third century. See 'River of Golden Sand,' ii. p. 17.—[W. G.]

city, to whom I applied for information, and who was engaged in re-editing the Topographical Account of Ssŭ-ch'uan, had never even heard of the Quern Stone. He was good enough to give me a printed plan of Ch'êng-tu, on which the mound is indicated, but he knew nothing of its builders or their purpose. From whatever quarry the stone was procured, it seems most likely that it was conveyed by water to near its present position, since it is a great deal broader than any road in the province.

2. Mount O.

On the 26th July we took ship outside the East Gate on a rapid narrow stream, apparently the city moat, which soon joins the main river a little below the An-shun Bridge, an antiquated wooden structure some 90 yards long. This is in all probability the bridge mentioned by Marco Polo. The too flattering description he gives of it leads one to suppose that the present handsome stone bridges of the province were unbuilt at the time of his journey.* The main river is a very disappointing waterway, about 80 yards broad in its wider reaches, but often narrowing to 50 yards or less, full of small rapids and shoals, and navigable only by the smallest junks. Our own bark drew at most a foot and a half of water, but in many places the channel drew less, causing us to stick fast repeatedly. The stream being swift—between five and six knots—and the numerous bridges, though generally well built, having uncomfortably small arches, the navigation is not devoid of danger. The luxuriant plain through which we were floating is thoroughly and easily irrigated by means of a modification of the machine known as the Persian wheel: a great quantity of water must be taken up in this way and spread over the country; but when all allowance is made for the diminution of the river, one cannot help surmising that Marco Polo must have felt reluctant to call it the Chiang Shui, or "Yangtzŭ waterway." He was, however, correct enough, as usual, for the Chinese consider it to be the main upper stream of the Yangtzŭ. It was pleasant in the glowing summer weather to glide down through the rich cultivation amid the hum of the huge water-wheels which met us at every turn, and to reflect that here at least is a country which can never suffer from drought. A garrulous coolie whom I had brought with me, for other purposes, however, than to criticise scenery, was loud in his admiration of a region which seemed to him an earthly paradise; and I was beginning to feel some of his enthusiasm, when the spectacle of a naked corpse, which two dogs were devouring on the towing-path, drew from him a burst of delighted laughter, and abashed all sympathy.

* One need not accept the supposition that Marco Polo described things so loosely and inaccurately. On this subject, and on the probability of great changes having taken place in the rivers about Ch'êng-tu, see the Introduction to Captain Gill's 'River of Golden Sand,' p. [37].—[H. Y.]

The limit of navigation for large junks is Su-ma-t'ou, a busy place in lat. 30° 28′ (by obs.). Twenty-five miles or so further down we passed Chiang-k'ou, a flourishing landing-place, at the junction with the river which runs down from Hsin-ching Hsien, some 20 miles away. This branch, locally called the Nan river, is beyond question a wider and deeper channel than that which we had been following, and should be regarded as the main river; but the waters of this plain are so intricately divided and subdivided, that their system is beyond comprehension. That the torrent which issues from the Kuan Hsien gorge should split up into an indefinite number of streams, and that these, after traversing the plain, should ultimately form two separate rivers flowing on different sides of a high range, namely, the Lu-chou river which we have coasted, and the Sui-fu river which we have now reached, would perhaps be credible if the plain were a dead flat, and its soil were an alluvium of considerable depth. But the streams have a swift current; those which I have seen are little below the level of the land; and further they are obstructed by frequent shingle-beds. At Su-ma-t'ou the shore is a thick layer of roller-stones, five to ten or more inches in longer diameter, so closely strewn that they make landing unpleasant. How comes it that this one extensive depression amid a wide ring of mountains should possess in its distribution of waters, and in no other particular, all the character of a delta? The only intelligible explanation seems to be that the distribution is produced artificially; but there is a conflict of authority on the question. Baron v. Richthofen describes the irrigation and drainage as natural,* while Captain Gill speaks of "ingenious irrigation works" at Kuan Hsien which direct the river "into the artificial channels by which the plain is watered." †

Chiang-k'ou is historically famous as the spot where the great rebel Wang-san-huai threw overboard vast quantities of treasure, the plunder of the province, and then burned his vessels, somewhere in the early part of the reign of Chia-ching. A few miles lower down we passed P'éng-shan Hsien, about which point the river widens out after the junction of all its subdivisions, and is called by foreigners the Min—a

* See p. 64 of his letter on Ssŭ-ch'uan.

† The explanation of the phenomena is, I apprehend, to be sought in the "alluvial fan" (or convex delta) structure assumed by the débris spread by a stream which debouches suddenly from a mountain gorge into a flat valley, this structure being taken advantage of by the people to carry radiating channels of irrigation from the mouth of the gorge. "Thus the natural rivers of the country seem to have disappeared, or become merged in the number of artificial watercourses or canals, into which they have been distributed by the industry of the children of the soil. And instead of finding the streams diminishing in number and increasing in volume as we follow them downward, it is the reverse that takes place. There is complexity below and unity above." This is quoted from remarks of the lamented R. B. Shaw on the rivers of Kashgar, in 'Proceedings R. G. S.,' xx. p. 486. He refers to a paper by Mr. F. Drew on the subject, read before the Geological Society in August 1873.—[H. Y.]

name given to it probably by the Jesuit surveyors and perpetuated on subsequent maps, but quite unknown locally. As above remarked, the natives regard the river which we have been descending as the main stream of the Yangtzŭ; when they apply a distinctive name to it they call it the "Fu" river, after the three Fu cities of Ch'êng-tu, Chia-ting, and Sui-Fu (Sü-chou).

The plain begins to break up into hills a few miles below Mei-chou. Some hours before reaching that point my attention had been attracted to a dim but sharp-edged object rising high above the south-western horizon, which I took to be a cloud; but at last, noticing that its profile did not change, I pointed it out to a boatman, who replied with a certain contempt, "Don't you know Mount Omi when you see it?" From the point where I first caught sight of it, its distance was more than 50 miles. There must be something in the conditions of its position which greatly exaggerates its size, for when it is seen across the level country from the edge of which it rises, the mind at once refuses to believe that any mountain can be so high. How it looks from a nearer point of view I cannot affirm, for I have ascended it, travelled all round it, and three times passed close under it, without ever seeing it again, as it was always clothed in mist. Perhaps the mirage of the wide plain lends it an illusive majesty, which is enhanced by its remarkable outline. Its undulating ridge gradually rises to the summit at the southern end, where, from its highest knoll, it is suddenly cut sheer down to the level earth—or nearly so, for the lower fourth part was hidden by clouds—forming a precipice, or, it may be, a series of precipices, which it is disagreeable to think of.

We naturally made all haste to reach such an imposing prominence, and were glad to land at Chia-ting Fu on the 28th, after a journey—not counting stoppages—of twenty-six hours and forty-two minutes from the capital. The distance may be estimated at a little more than 100 miles. The country becomes hilly as the city is neared. What little river traffic we met consisted chiefly of coal and building materials. For more valuable goods it appears that the shorter and safer overland journey is preferred. The situation of Chia-ting at the junction of three large rivers, the Fu, Ya, and T'ung, in a district where wooded slopes contrast with bare cliffs, is very picturesque. Its population may be stated at about 25,000. A very considerable silk trade has its nominal headquarters in the city, but official exactions have in practice driven it to the large village of Su-ch'i, five miles westward, which has water communication by means of a fourth river, little more than a torrent, issuing from the flanks of Mount Omi. White wax and timber are the other principal exports of the city. It lies in exactly the same latitude as Ch'ung-ch'ing, viz. 29° 34′.

The road to Omi Hsien, 15 miles or so from Chia-ting, crosses the

Plate I. to face Page 31.

broadest part of the valley of the Ya, and coasting along the right bank of the Omi river, approximately bisects the right angle formed by the confluence of the Ya and T'ung. It passes through the most luxuriant part of the country in which the famous white wax is produced. As I have described this cultivation in a previous paper, and the valley has been visited by former travellers, I will only mention here that its town of Chia-chiang lies in lat. 29° 44′ 20″ (I obtained no observation at Hung-ya), and that the head of the valley is at the market town of Lo-pa-ch'ang in lat. 29° 53′. The general run of the valley is north-west to south-east, but it is very tortuous above Hung-ya. The southern part, with its silk, white wax, and teeming rice-growth, so easily irrigated by the Persian wheels, may be fairly regarded as the richest nook of China. The little city of Omi, a square of a quarter of a mile on each side, is delightfully placed below the mountain spurs on the edge of a tract, sown with woods and seamed with torrents, which might be called park-like if nature had made it prim. It has a long suburb on the eastern side, and is thickly inhabited, a statement which I make authoritatively, since the whole population turned out to see me pass.

Near the point where the road from Omi city, for all the world like an English country-lane, enters the woods, we found lodging in the temple of Pao-ning-ssŭ. One of the sixteen patriarchs (Lo-han)* whose portraits surrounded my chamber, held in his hand an inscription, of which Plate I. is a careful copy.

On the 30th we travelled up by the bed of a torrent through woods which gradually thickened into forest, passing many a temple and shrine, until we reached the foot of a long series of stone stairs, and climbed to our breakfast halt in a monastery of forty monks—Fu-hu-ssŭ, the "tiger-taming temple." Its numberless halls and galleries, built entirely of timber, contain more than 800 statues of Buddhist saints and celebrities, none smaller than life, and several of colossal size, each having a separate individuality of lineaments, dress, and attributes, and an attitude which is not repeated. A Chinese artist was engaged in putting the finishing touches to a quadruple Buddha with thirty-two arms, standing about 12 feet high, beautifully executed in a very un-Chinese style. Above this a steep climb of 1400 feet, or thereabouts, leads up through pine groves interspersed with nan-mu trees, one of which I noticed 2½ feet in diameter, and more than 150 feet in height; the Ssŭ-ch'uan oak is also abundant. Nearly all the buildings which I saw on the lower slopes of Mount Omi, or O, as it is locally called for brevity's sake, are monasteries, and with the exception of monks, some 2000 in number, there are hardly any inhabitants but a few innkeepers. The land is church property. There is a certain

* This is the Chinese transformation of the Sanskrit *Arhan*, a Buddhist saint, in whom all worldly desire has become extinct.—[H. Y.]

cultivation in small clearings, but generally speaking the whole mountain is covered with forest.

We had thus far, however, only climbed a spur of the sacred mount, and had to undo much of our work by descending again into a deep glen. A broad torrent is here divided by a precipitous island-rock, which is crowned by a temple and connected with both banks by bridges; its crest thickly wooded; its vertical sides bare except where they are festooned with creeping plants; the bottom of the twin abyss filled with seething foam; a spot where a hermit might abide, and a traveller may well linger. Near this point a few stalls are met with, on which the productions of Mount O are exposed for sale to pilgrims. They are more curious than valuable—a kind of ginseng called *o-sêng*, various sorts of tea produced in the vicinity, quartz crystals found in the rocks, carved staves for the support of weary pilgrims, and a kind of cicada with a long fungus growing out of its head. Close to this emporium, a beggar sitting by the roadside, with his back propped against a tree, attracted my notice by the extraordinary size and shape of what I took to be his ears, but which turned out to be the soles of his feet. His thighs and legs ran up behind his back, so that his feet were placed, with the soles in front, between his ears and eyes; a most unpleasant specimen, which I did not care to investigate.

We had now attained the foot of the central mountain, the ascent of which is made painful rather than easy by the stone steps which have been laid down for the benefit of pilgrims; but there are many gradients which it would be impossible to climb without them. The mist thickened round us as our caravan plodded heavily up the devious stairs, with a primeval forest for balustrade, and when we asked an athletic monk, who outstripped us with great ease, how far it was to Wan-nien-ssŭ, our resting-place, it seemed unkind of him to reply "Fifteen miles for you and five for me." We made Wan-nien-ssŭ (Myriad Years Monastery) early in the evening, and in the clump of temples of which it is the centre found much instruction and amusement.

Just below it, in a kind of hostel, is a statue of Buddha twenty-five or more feet high, of a very rude and archaic style, reputed to be the oldest idol on the mountain. It is said to be bronze, but I took it for pure copper. Nothing could be learned of its age. A more artistic work is found in a temple behind Wan-nien-ssŭ, in a separate shrine. Passing under a dark archway we entered a hall in the middle of which, as soon as we could see through the dim religious light, we observed a kind of palisade, and inside it an elephant cast in magnificent bronze, or some such composition, nearly as white as silver. The surface is of course black with age and the smoke of incense, but I was able to judge the colour of the metal by inspecting a patch which has been worn down by a practice of devotees who rub coins on it and carry them away as relics. The size of the image is that of a very large elephant, that is to say some

12 feet high; its peculiarities are that it is somewhat too bulky, that the trunk seems rather too long, and that it has six tusks, three on each side. With these exceptions, if exception can be taken, the modelling is excellent, and a glance shows that the artist must have studied from life, for the folds of skin on various parts of the body, and the details of the trunk, are rendered with great truth and success, though with a certain conventionalism. The creature has been cast in three sections, belly and legs forming the lower, and back the uppermost. The contour of the belly is complete, but on stooping underneath one sees that it is hollow and that the exposed edges are about five inches thick; in other parts the metal is a great deal thicker. Each of his feet stands on a bronze lotus, and on his back the mammoth bears in place of a howda another huge lotus-flower, in which is enthroned an admirable image of Buddha, cast, I was told, in the same metal, but thickly gilt, his crown of glory towering to a height of 33 feet above the floor. Though generally called a Buddha, the image represents P'u-hsien P'u-sa (Samantabhadra Bodhisattva), the saint who is the patron or patroness, for the Chinese credit him with female permutations, of Mount O. The monks told me that P'u-hsien descended upon the mountain in the form of an elephant, and that the casting commemorates the manifestation. But it may more probably bear an allusion to the well-known vision in which the mother of Buddha saw before his birth a white elephant with six tusks.

The fane which encloses the casting is not less curious, being a hollow cube, covered with a hemisphere, and roofed with a pyramid. The walls of the cube are twelve feet thick, and the floor of the interior is a square of 33 feet on each side. The square becomes modified into a circle as the courses rise, by a transition which is gradual and pleasing but impossible to describe clearly without a knowledge of technical terms. Speaking clumsily, the four walls each terminate in a semicircular outline, the summit of each semicircle touching the circumference—i. e. the base—of the dome, and the four corners are each filled with three masses of brickwork, the surface outline of the central mass being an oval pointed at both ends, and the two others spherical triangles. The faces of all three are concave. The circumference of the dome is thus evolved from a square without any awkward abruptness, and it is only on trying to describe it geometrically that the arrangement begins to appear puzzling. To the eye the architectural process of squaring the circle is perfectly simple. The dome however springs from a rim which stands a little back from the circle thus formed, and so gains a few additional feet of diameter and increased lightness of appearance. The vault is to all appearance a hemisphere, very smoothly and exactly constructed. The whole edifice is of brick except, I think, a few insertions of stone blocks in the lower courses. The walls contain a series of ledges on which are placed a number of small images said to be of silver. The only light

which enters is admitted by the two arched doorways, before and behind the elephant.

The outside of the shrine cannot be seen, as it is enclosed in a timber building, which entirely covers it. Clambering by means of this envelope on to the roof, I found, instead of a cupola, a confused heap of brickbats, the debris of a low four-sided pyramid which seems to have been faced with porcelain tiles. The timber casing was absurdly added by the monks to protect the dome from the weight of the winter snow, a fair indication that the shrine was not built by Chinese. So solid a building would probably stand fast even if the whole mountain were upset on to it. The precaution has gone far to defeat its own purpose, for the wooden husk has been twice burnt to ashes, damaging not only the roof but the tusks of the elephant as well. It is said that they were melted off by the intense heat. The present tusks are a feeble restoration built up of plates and bands.

With respect to the age and origin of the shrine and its contents, the most authentic information is found in the Ssŭ-ch'uan Topography to the following effect. "'The monastery of 'Clear Water P'u-hsien' on Mount Omi, the ancient monastery where (the patriarch) P'u served Buddha, dates from the Chin dynasty (A.D. 265–313). During the T'ang dynasty Hui-t'ung made his hermitage there. It was named 'Clear Water P'u-hsien Monastery' under the Sungs; Wan-li, of the Mings, changed its style to 'Saintly longevity of a myriad years.' The 'Hall of Great O' stood in front, facing which was the 'monument of Illustrious Patriarchs of the South,' and on the left the 'monument of Sylvan Repose.' The buildings included a series of seven shrines, the first of which contained a 'P'i-lu,' the second seven Buddhas, the third a Deva king, the fourth a guardian deity (Chin-kang), and the fifth a great Buddha; the sixth was *a revolving spiral constructed of brick, enclosing a gilded bronze image of P'u-hsien, sixteen feet high, mounted on an elephant.* In the beginning of the Sung dynasty (A.D. 960) orders were given to set up a bronze shrine and a bronze image also more than 100 feet high. Under Wan-li, the Empress-mother directed the shrine of P'u-hsien, namely, the spirally constructed brick edifice, to be carefully and thoroughly restored, and had the elephant gilt."

The existing building is obviously the "revolving spiral" here mentioned, and the awkwardness of the term, which conveys no idea to a Chinaman, is another proof that the builders were not Chinese. A name has had to be invented for an exotic form of construction, and there is, so far as I am aware, no other instance of a true dome of brick or masonry in China. It seems safe to conclude that the builders of the P'u-hsien shrine, as well as the artist who designed the castings, were Indian Buddhists.*

* In the name "revolving spiral" we seem to have another allusion to such structures as are mentioned in the note at p. 25. In the present case there may have been some

With reference to the patriarch P'u (a religious name which means contemplation), I made inquiries of a learned abbot in Ch'ung-ch'ing; but beyond ascertaining that he lived in the early time of the Chin dynasty, and is an historical personage, I only elicited the unsatisfying statement that "the joy of religion was his mistress, the knowledge of salvation his estate; grace and mercy were his treasures, and charity his vocation. To ask his lay name or his habitation is not permitted."

Hui-t'ung (also a religious name), is said to have flourished during the reigns of the three T'ang emperors Wen-tsung, Wu-tsung, and Hsüan-tsung (A.D. 827–860). The second of these monarchs is the famous iconoclast who melted down all the bronze idols he could lay hold of, and turned the metal into currency. Hui-t'ung, it appears, had influence to save a certain number; but the reason why the elephant was spared is not far to seek. So intractable a mass of bronze could not well be melted whole nor broken up, unless at a cost which would outweigh its intrinsic value.

It does not seem likely that the "great Buddha" alluded to in the above citation, is the bronze (or copper) colossus which now stands in a hostel a few hundred yards from the Wan-nien-ssŭ. If the "great Buddha" had been of bronze the fact would have been mentioned. It may be that the extant statue is all that remains of the "bronze shrine and bronze image *also* more than a hundred feet high." The word "also" has no correlative in the text, but the passage is an extract from some previous work, and the implied reference may well have disappeared in the process of compilation. The height of 100 feet may be taken as applying to the shrine, and perhaps a pagoda-like spire. The existing Buddha is, as I have said, about 25 feet high, and as compared with the elephant is a distressingly feeble conception. The latter, though more severe in style than modern realism is pleased to admire, cannot be refused the praise of excellence, and I am not indulging the fondness of a discoverer in asserting that it would not disgrace a reputable artist of any school or epoch. The only defect I could discover in the mechanical work is that the three stages of the casting are not quite accurately closed together. China is reproached with its lack of ancient monuments, and one may be pardoned a certain self-gratulation upon the discovery of what may be considered, next to the Great Wall, the oldest Chinese building of fairly authentic antiquity, containing the most ancient bronze casting of any great size in existence. It

wooden structure, formerly pivoted in the dome, that revolved. The suggestion of Hindu builders does not help to solve the puzzle of the dome. The description of the square building, with pendentives and circular dome, rather suggests work like that of the Indian Mahommedans of the Deccan in the sixteenth century. (See Fergusson's 'Indian and Eastern Architecture,' p. 560 *seq.*) But place and date are far apart from these, and I commend this very remarkable account to Mr. Fergusson's own consideration. —[H. Y.]

is not every day that a tourist stumbles upon a handsome monument fifteen centuries old.

Before I had done wondering at the brazen monster, and the dome which shields his resplendent rider, a monk who was standing by said confidentially, "Come with me, and I will show you a stranger sight; would you like to see a real tooth of Sakya-muni Buddha?" "Very much, indeed," I replied; and he took me down an imposing flight of steps to a temple near the copper colossus, informing me on the way that Buddha had only four teeth, all of which are extant. I followed my guide into a hall chock-full of gods of brass and clay, and in a few moments the sacred tooth was extracted from a wooden box and put into my hands. I estimated its weight at about 20 pounds, but the priests who gathered round told me that the exact weight is 13½ catties, or 18 English pounds. It is about a foot long, and of a rudely triangular outline: the grinding surface is level, but not smooth, and contains layers of transparent enamel. It is evidently a tooth, and may probably have been the molar of an elephant, or of some cognate beast. Emboldened by the tolerance of the priests, who had no fanatical objection to its minute examination, I borrowed a razor from them and attempted to cut the surface of the relic, but I could make no impression upon the dense fossil ivory. They told me that it had been presented by a Chinese emperor, who gave a similar tooth to a monastery on Wu-t'ai-shan. I protested to the priests that it was an elephant's molar,* but they scouted the idea, affirming that they were well acquainted with the shape of elephants' teeth, which, they said, are "long things like horns sticking out of their mouths." "But," I again objected, "if this was one of Sakya-muni's teeth, and he was reasonably well proportioned, he must have been 140 feet high." "How do you know he wasn't?" they asked; "and how do you know if the tooth hasn't grown since he entered Nirvana?"† Such faith, defended by such dialectics, is inexpugnable, and I withdrew from the controversy.

Wan-nien-ssŭ is 3500 feet above sea-level. We left it on the 31st, and mounted, through rain and fog, up and down—for the path is by no means a continuous ascent—to the temple of Hsi-hsiang-ch'ih. On the morrow we were stopped by heavy rain after three hours' marching of the severest kind, and compelled to spend the day in Chieh-yin-tien, at which point we had reached an elevation of 9000 feet. Nothing was visible through the thick mist during the two days, but the lower parts of the forest trunks and the interminable stairs.

* Mr. Fortune has given a cut of a Buddha's tooth at Fu-chau, which is evidently an elephant's molar. It is copied in 'Marco Polo,' Bk. iii. ch. xv.—[H. Y.]

† The following occurs in my diary written before I had seen Mr. Baber's paper:—"Mashhad, 2nd Feb., 1881.—A man came with curiosities for sale, amongst others an elephant's grinder tooth; the owner declared it was several thousand years old, and was the tooth of an antediluvian man. I asked him how many farsakhs tall that man was."—[W. G.]

We visited several temples, discovering among other curiosities a sleeping Buddha of a very realistic nature; a nude figure lying in a genuine bed, with real blankets, mattress, and pillows complete. In another place two mummies—called by the priests *jou-shên* or "flesh idols"—were shown us as the mortal remains of a pair of saints, set up like ordinary Buddhist images, and very much resembling them. An inspection of the damaged ends of their fingers showed a great many folds of silk bandage surrounding a central core, which was not, however, quite laid bare. There is no reason to doubt their authenticity, though their shrunken faces, which are exposed, are so lacquered and "made up" as to have lost all human semblance.

The abbot of Chieh-yin-tien turned out to be a very intelligent ecclesiastic, and much better instructed in Buddhism than most of his cloth. He had travelled far and wide in Northern China, had often taken a passage on steamers, and was much interested in the subject of locomotive engines since a recent visit to Shanghai and an excursion on the Wusung Railway. His mind had been enlarged by these journeys to foreign parts, and he allowed me to kill a fowl which I had brought with me, probably the first tame bird which had ascended the mountain for ten centuries. All eating of flesh or taking of life is, of course, forbidden by strict Buddhist discipline. Here the severest monastic rules are imposed; even eggs are contraband; but the abbot made no difficulty, and even met me more than half-way. We sat long into the night round the wood fire, baking and eating the fine potatoes which are grown on the shoulders of the mountain, and listening to his remarkable stories.

"Wu-t'ai Shan," he said, "is the most ancient holy place in China, and contains a statue which stood there before Buddhism was preached. But Mount O is more strange and wonderful. Often during the ascent of the mountain have pilgrims been beguiled by the chant of invocations, and the pleasant tolling of bells in lone spots where no monastery lies, and straying from the road towards such sounds, have lost their way. On a sudden they have descried in the thickest part of the forest immense halls in which images of purest gold are seated on jewelled thrones; there they have been daintily fed and delicately lodged by ministering priests, and guided on the morrow back to the main path, but never after their return from the Golden Summit have they been able to find the mysterious abode of their hosts. Sometimes a pilgrim strays into the mouth of a cave from which issues a gleam of no earthly splendour; and lighted by the ray mile after mile without fatigue through stupendous chambers of which he never divulges the unutterable secrets, he at length falls asleep, to awake on the top of O, gazing on the Glory of Buddha. The Glory of Buddha," said the abbot, "is unknown to you, but you may see it when you reach the Golden Summit.

"You do not seem to believe all this. Well, you are not bound to believe it. I believe it myself. You ask me about the Wilderness (Lao-lin) behind the mountain. People will tell you much which is not true. It is partly inhabited by charcoal-burners, potash-burners, wood-cutters, and miners of copper and iron. There are two mountains in it, Mount Wa and Mount Wa-wu, as high as Mount O, but with precipices on every side, so that they can only be ascended by means of ladders, and only in the summer months; in other seasons the falling icicles make the ascent impossible. Both have lakes on the summit. The Wilderness abounds in tigers, white bears, wolves, foxes, monkeys, musk-deer, and wild oxen. Eight years ago I saw a tiger as big as a cow on a rock outside the door. Afraid! No, I was not afraid. Why should a poor monk be afraid of a tiger? The wild oxen are much like common cattle, but shorter in the body and far more active. Those I saw near Mount Wa-wu had long black hair, but generally they are the same colour as domesticated cattle. It is not easy to find them, and they are so savage that people fear to hunt them."

What he told us about the two mountains is fairly true, for I have since caught a distant glimpse of Mount Wa-wu, and ascended Mount Wa, a most singular formation resembling a square tower.* All its four sides are very slightly out of the perpendicular for a height of about

* The upper story of this most imposing mountain is a series of twelve or fourteen precipices rising one above another, each not much less than 200 feet high, and receding very slightly on all four sides from the one next below it. Every individual precipice is regularly continued all round the four sides. Or it may be considered as a flight of thirteen steps, each 180 feet high and 30 feet broad. Or again, it may be described as thirteen layers of square, or slightly oblong, limestone slabs, 180 feet thick, and about a mile on each side, piled with careful regularity and exact levelling upon a base 8000 feet high. Or, perhaps, it may be compared to a cubic crystal, stuck amid a row of irregular gems. Or, perhaps, it is beyond compare. Some day the tourist will go there and compose "fine English"; he could not choose a better place for a bad purpose; but if he is wiser than his kind, he will look and wonder, and say little, and pass on.

The plateau on the top, undulating so slightly that it may be called flat, is a grove of evergreens with a few open glades—the most charming park in the world. The rhododendrons begin 3000 feet below, but perhaps attain their fullest exuberance on the summit. The lake is a marsh, and at least two brooks meander among the knolls. It is not very necessary to add that in perfectly clear weather the unassisted vision extends, on all four sides, to a greater distance than 60 yards—the fog limit of our prospect during the twenty-four hours we spent on the mountain.

At the north-west angle a natural buttress crowned by a pinnacle, not easily discernible from below, offers, though grudgingly, a safe but very narrow and sinuous way to within a thousand feet or so of the summit. Above this, following a track which takes advantage of the accidents of a corner, we wandered among broken cliffs, honeycombed with grottoes and irregular cavities, climbed the rungs of a long wooden ladder, hid ourselves from the rain in crannies and crevices, the sockets of icicles as big as church steeple, —of course there were no icicles in June, but I saw them in March, and heard them fall and remember it—climbed another ladder, followed a level ridge, climbed three more decrepit ladders and several more honeycombed steeps, lost all reckoning, and suddenly struck a gravel path which led us so easily into the park, that if it had not been for the fog we should have forgotten that we were in the clouds.

2500 feet. The abbot's tiger was probably a leopard, a beast which is common in Western China. Musk-deer, foxes, and bears I have seen, but the latter were black, and after a good deal of inquiry I concluded that the white bears are black, with a white spot on the breast.* A special interest attaches to the wild oxen, since they are unknown in any other part of China proper. From a Lolo chief and his followers, most enthusiastic hunters, I afterwards learnt that the cattle are met with in herds of from seven to twenty head in the recesses of the Wilderness, which may be defined as the region between the T'ung river and Ya-chou, but that in general they are rarely seen. There is, however, a certain salt spring a day's journey or more north of Ta-t'ien-ch'ih to which they repair in early summer, and where they may infallibly be found some time in June. The Lolos, hardy and athletic mountaineers though they be, are evidently fearful of molesting the hill cattle—*ngai-niu* in local Chinese. For such sport their weapons and hounds are miserably inefficient. The hounds, a species of thick-built terrier, rough haired and mostly black, with straight legs, a coarse tail and muzzle, erect ears, tan eyebrows, and about 20 inches of height, though very useful for tracking and rousing game, will not face a beast at bay. The Lolos carry a pike, and a quiver of poisoned arrows only nine or ten inches long, which they discharge from a powerful bow made of the wild mulberry. During the four or five days when a band of them, and a pack of a dozen dogs, were living with me, they made continual hunting excursions, and I gathered from their accounts that only a very courageous hound would approach a bear. One evening after their return from the hills they brought me a dog with a wound in his shoulder, saying that a bear had struck him and that the claw had remained stuck in the wound; but when after much difficulty we drew out the supposed claw, it proved to be the quill of a porcupine. A bear had, however, been brought to bay, and my guests admitted that they did not care to attack him. The wild oxen are considered far more formidable game than the bears; they hunt their hunters, and are said to be astonishingly agile; but no doubt some allowance must be made for the feeble weapons of the Lolos. A rude pike is not a likely instrument with which to slaughter a wild bull on the steep slope of a jungle-covered hill, and their arrows are so short that they can only be used at close quarters. Moreover, they carry their poison in a little bag and do not apply it to the arrow tips until the time for action arrives, a habit which must cause hurry and confusion, and be greatly in favour of the bull. The most successful mode of killing the cattle is by planting three pikes in a narrow run frequented by them, in such a manner that they may impale themselves on the points. Another way, which I could not quite understand, is to approach them with a large number of

* See 'Journal de mon troisième Voyage en China,' Armand David, iii. p. 328, where four kinds of bears are spoken of, one greyish (de couleurs grisâtres).—[W. G.]

dogs and men, to separate one from a herd, and to drive him over a precipice.

I was lucky enough to obtain a pair of horns and part of the hide of one of these redoubtable animals, which seem to show that they are a kind of bison. I do not remember if it is in speaking of this neighbourhood that Marco Polo mentions his "Beyamini"; but if the cattle should turn out to be a new species, *Bos Beyamini* would be a good name.*

It is an easy walk from Chieh-yin-tien to the summit, although a formidable staircase of 400 or 500 feet is encountered at the outset. About this point the pines attain their greatest size. We saw several which divided into two trunks at a few feet above the ground, and which are said to yield the best timber. The path grows easy at about 10,000 feet, where a great variety of flowering plants and ferns line its border. Above that elevation the pines begin to fall off, but the slopes are still well wooded with smaller kinds. Thick beds of weeds are passed, a plentiful growth of large thistles is remarked, then comes a potato-field, and we issue on to the highest point of O, known as the "Golden Summit."

The comparatively level space on the top—about an acre—is so holy that our company reached it in a high state of exaltation. The first object to be examined was a bronze temple of such excessive sanctity that it has been struck by lightning innumerable times. I had been led to suppose that it was still standing, the last of a long line of metallic buildings which had been successively demolished by thunderbolts; but I only found its ruins. The last thunder-bolt had fallen in 1819, since which event it had not been restored. The theory that a lightning stroke proves the sacred character of an edifice may perhaps be a Buddhist importation; the opinion of the Chinese is just the contrary. According to them a person killed by lightning must have been a monster of impiety. They hold, however, that any smooth and bright surface attracts a stroke, and they therefore jump to the conclusion that all creatures with glistening bellies, such as the frogs and eels (or edible snakes) which abound in Ssŭ-ch'uan rice-fields, turn upon their backs by a kind of natural affinity during a thunder-storm, and so attract the flash. Such, at any rate, was the conviction of the priest who showed us the ruins. The masses of metal at present lying in a heap on the summit consist of pillars, beams, panels, and tiles, all of fine bronze. The pillars are nine feet long and eight inches in diameter, the

* It is quite in this region that Marco locates the oxen called *Beyamini*—"very wild and fierce animals." I have supposed the word to be probably a misunderstanding of the amanuensis for *Buemini*, i. e. Bohemian, and that the traveller was comparing them to the German or Bohemian *urus*. It is not possible to say from what is stated here what the species is, but probably it is a *gavæus*, of which Jerdan describes three species (see 'Mammals of India,' pp. 301-7). Mr. Hodgson describes the Gaur (*Gavæus gaurus* of Jerdan) of the forests below Nepaul as fierce and revengeful.—[H. Y.]

thickness of material being rather less than an inch, for of course they are hollow. The only complete beam I could discover was a hollow girder 15 feet long, nine inches broad, and four inches through, the thickness of bronze being much the same as in the pillars. The panels, of which, by supposing the fragments roughly pieced together, I estimated there are about forty-six, are of the average dimensions of five feet by one foot seven inches. They are about an inch thick, but their frames are thicker, and for some unintelligible reason have slips of iron let into their edges. The panels are very handsomely ornamented with seated Buddhas, flowers, and scrollwork, and with hexagonal arabesques of various modification. The tiles, also of bronze, resemble ordinary Chinese tiles, but are twice as large. Besides these there are several hundreds of iron tiles stacked together. Many supplementary fragments, such as sockets, capitals, corner-pieces, eave-terminals, and decorative adjuncts, were lying about, all far too massive to be carried away down the steep mountain even if the priests would have allowed them to be abstracted.

It is not easy to guess what the size and shape of the building has been, since an unknown number of panels and beams lie hidden under the heap of tiles. The priests told me that externally it had two stories, that the interior was 19 feet 6 inches high, the same in breadth, and 26 feet long. If so it could not have been the shrine built by the Emperor Wan-li, for an imposing bronze tablet,* which, with pedestal and crown-piece, stands 6½ feet high by 32 inches in breadth, records that the dimensions were 25 feet high, 14½ long, and 13½ broad, and that it was erected in 1603.

A few yards from the site of the bronze shrine is a temple crowned by a golden ball—whence the name of Golden Summit. Passing through this on to a small terrace, we found that we were at last standing on the brink of Shê-shên-ngai ("the suicides' cliff"†), perhaps the highest precipice in the world. The edge is guarded by chains and posts, which for further precaution one is not allowed to touch; but as the posts stand out a little over the precipice, one can easily look down without holding by them. The abyss was nearly full of mist, and I could not see more than 400 or 500 feet into it. The face of the rock seemed vertical. When I first caught sight of the mountain from a distance of 50 miles or more, it might have been likened to a crouching lion decapitated by a downright stroke close to the shoulders, the fore feet remaining in position. The down-cleft surface, i. e. the precipice, looked not more than 15° out of the vertical, but the steepest profile was not visible from that point of view. So far as I could estimate, the

* The tablet contains a very long inscription, couched in the highest style of Neo-Buddhist rigmarole, of which I obtained a rubbing.

† The name is so explained popularly, but *shê-shên*—"to cast away the body"—also means to put off the flesh, i.e. to become a monk or nun.

upper two-thirds at least of the mountain are cut sheer down in this manner. My results for the height give 11,100 feet above the sea for the summit, and 1700 feet for the country below; but from a cause which I need not here explain, the measurement is open to a suspicion of error to the amount of about 500 feet in the case of the summit. Even if that allowance be deducted, this tremendous cliff is still a good deal more than a mile high. It is the outpost of the limestone formation, which on this line of latitude extends westward to the T'ung river, where the syenite and granite of the Tibetan plateau first appear.

Naturally enough, it is with some trepidation that pilgrims approach this fearsome brink; but they are drawn to it by the hope of beholding the mysterious apparition known as the "Fo-kuang" or "Glory of Buddha," which floats in mid-air half-way down. So many eye-witnesses had told me of this wonder that I could not doubt; but I gazed long and steadfastly into the gulf without success, and came away disappointed but not incredulous. It was described to me as a circle of brilliant and many-coloured radiance, broken on the outside with quick flashes, and surrounding a central disk as bright as the sun, but more beautiful. Devout Buddhists assert that it is an emanation from the aureole of Buddha, and a visible sign of the holiness of Mount O.

Impossible as it may be deemed, the phenomenon does really exist. I suppose no better evidence could be desired for the attestation of a Buddhist miracle than that of a Baptist missionary, unless, indeed, it be, as in this case, that of *two* Baptist missionaries. Two gentlemen of that persuasion have ascended the mountain since my visit, and have seen the Glory of Buddha several times. They relate that it resembles a golden sun-like disc, enclosed in a ring of prismatic colours, more closely blended than in a rainbow. As far as they could judge by noticing marks on the face of the precipice, the glory seemed to be about 2000 feet below them. It could not be seen from any spot but the edge of the precipice. They were told, as I was, that it sometimes appears by night, and although they did not see it at such an hour, they do not consider the statement incredible.

It may be imagined how the sight of such a portent, strange and perplexing as it would seem in any place, but a thousandfold more astonishing in the depths of this terrible abyss, must impress the fervour of simple and superstitious Buddhists. The spectacle attracts pilgrims from all parts of China and its dependencies. Even Nipalese occasionally journey to the mountain. The Tibetans, lovers of their native snows, prefer the winter for the season of pilgrimage. The only tribes which do not contribute devotees are the Lolos; but although they are not Buddhists, one of them told me that their three deities Lui-wo, A-pu-ko, and Shua-shê-po, dwell on the "Golden Summit."

The missionaries inform me that it was about three o'clock in the afternoon, near the middle of August, when they saw the meteor, and that

it was only visible when the precipice was more or less clothed in mist. It appeared to lie on the surface of the mist, and was always in the direction of a line drawn from the sun through their heads, as is certified by the fact that the shadow of their heads was seen on the meteor. They could get their heads out of the way, so to speak, by stooping down, but are not sure if they could do so by stepping aside. Each spectator, however, could see the shadows of the bystanders as well as his own projected on to the appearance. They did not observe any rays spreading from it. The central disc, they think, is a reflected image of the sun, and the enclosing ring is a rainbow. The ring was in thickness about one-fourth of the diameter of the disc, and distant from it by about the same extent; but the recollection of one informant was that the ring touched the disc, without any intervening space. The shadow of a head, when thrown upon it, covered about one-eighth of the whole diameter of the meteor. The rainbow* ring was not quite complete in its lower part, but they attribute this to the interposition of the edge of the precipice. They see no reason why the appearance should not be visible at night when the moon is brilliant and appositely placed. They profess themselves to have been a good deal surprised, but not startled, by the spectacle. They would consider it remarkable rather than astonishing, and are disposed to call it a very impressive phenomenon.†

3. The T'ung River.

Returning to the city of Omi we continued our journey up the Ya valley to Ya-chou, and then followed the high road over the Great Hsiang-ling Pass‡ to Ch'ing-ch'i Hsien, a track which has been frequently

* In a rude chart of the mountain, given to pilgrims, the ring is depicted as broken across on both sides in a line passing horizontally through the centre of the disc.

† This remarkable phenomenon is evidently similar to that of the Giant of the Brocken, regarding which see Sir D. Brewster's 'Natural Magic,' 1833, p. 130. I have described a like phenomenon as witnessed long ago in the Kasia Hills of Eastern Bengal: "Standing on one of the highest points in the station at Cherra, about sunset, I have seen my shadow cast on a distant bank of white fog that filled the valley to the eastward; an appearance resembling that of the celebrated giants of the Hartz and the Stockhorn. The figure was surrounded by a circular iris. The heavy fogs that fill the valley to the east of Cherra render this a common phenomenon at sunset. It has since been pointed out to me that any one may witness this phenomenon on a small scale, in going through the grass at sunrise on a dewy morning. Each will see a faint halo surrounding the shadow of his own head" ('Journ. As. Soc. Bengal,' xiii. pt. ii. p. 616). The last-mentioned form of this phenomenon caused that extraordinary personage Benvenuto Cellini to suppose it was a singular mark of supernatural favour to himself in consequence of certain visions he had had: "Dallora in qua . . . . mi resto un splendore (cosa maravigliosa!) sopra il capo mio . . . . Questo splendore si vede sopra l'ombra mia la mattina . . . . e molto meglio si vede quando l'erbetta ha addosso quella molle rugiada," &c. ('Vita di Benv. Cell.,' Milano, 1806, i. pp. 452–3).—[H. Y.]

‡ Both Abbé Huc and Mr. Cooper have confounded this pass with that of Fei-yueh-ling, two days' journey or so further west on the road to Tibet. Captain Gill has of course properly discriminated them.

described and needs no further notice. I take up the thread of our route at the village of Han-yuan-kai, the furthest place reached in that direction by Mr. Cooper, and called by him Hi-yan-ky. From this point forward my journey is indicated on the chart. The Liu-sha river, rising in the Fei-yueh-ling range not far from the top of the pass, joins near Han-yuan-kai a torrent, generally dry, which runs down from Ch'ing-ch'i, and then continues its course to the T'ung river—here called the Ta-tu—which it enters a little below the large village of Fu-lin. The cultivated part of the narrow valley of the Liu-sha is very fertile, but is liable to be invaded by the sand and shingle of its numerous torrents. The environing mountains rise in places to a height of 7000 or 8000 feet above its floor, and abound in precipices of wild grandeur. A good deal of lead, which includes silver, is mined in the rugged region immediately east of it, and gold is known to occur, but is not allowed to be worked. The valley possesses great local renown for its rice, opium, and silk, the exceptional produce of which is easily accounted for by its low level. West of it there is no such low-lying country until the plains of India are reached. The only practicable road into it from the east is over the Great Hsiang-ling, for the southern track along the T'ung river, which I traversed on a subsequent journey, is always dangerous, and in winter impassable for beasts of burden, on account of the deep crevasses with vertical sides which mountain streams have gouged into the limestone. In consequence of these natural obstacles, and of the occupation of a long strip of intervening country by independent Lolos, the only route by which Chien-ch'ang can be reached from Ssŭ-ch'uan runs through this depression, and for similar reasons the still more important road to Tibet, the only road open since the stoppage of the Koko-nor route, takes the same line. These two highways diverge at Ch'ing-ch'i Hsien, which it is natural to suppose should be a place of exceptionally large trade and population. The contrary is the case. It may be safely asserted that Ch'ing-ch'i is the smallest city in China. The explanation of the paradox is that its site is so closed in by steep mountains that there is no room for cultivation. The villages of Han-yuan-kai, T'ang-chia-pa and Fu-lin have accordingly received the benefit of the Chien-ch'ang carriage, while Fu-chuang (otherwise Fu-hsing-ch'ang) and Ni-t'ou (Captain Gill's I-t'ou) have acquired the monopoly of the road traffic with convoys to and from Tibet.

I reached Fu-lin on the 17th August, after an excursion to a parallel valley. A mile or so further on we came upon the Ta-tu river, at this point 2200 feet above sea-level, running in a very rapid stream, about 180 yards broad. The Liu-sha enters it through a wide shingle flat, not much less than a square mile in extent. The main river sweeps in a grand curve from beneath a line of precipices 3000 feet above its waters, and after clearing the shingle plunges into a narrow gorge and

makes its way eastward, past bluffs which ultimately rise, at Mount Wa, to not much less than the height of the "Suicides' Cliff" of Mount O.

The Ta-tu, or to adopt its more general name, the T'ung, should be regarded as the main upper stream of the Min river, since it brings down a much greater volume of water than either of the two confluents which join it near Chia-ting. At Lu-ting bridge, one of the narrowest points, its breadth is a little under 100 yards, but it is not navigable above Tzŭ-ta-ti; even below that town there are so many rapids and obstructions that the waterway is little used. Between Fu-lin and Sha-p'ing it is only practicable, for the whole distance, for timber-rafts which are floated down to Chia-ting for sale; but the danger of the transit is so imminent that the owners of the timber have to bind themselves to provide the raftsmen with coffins in case of fatal accidents. Below Sha-p'ing there is no difficulty. A wilder or more broken region than that which borders the T'ung can scarcely be conceived; there are few reaches which are not overhung by bare cliffs, often of immense height, and yet every here and there, in nooks between the mountain-spurs, lie small cultivated glens which are models of secluded and tranquil beauty. In such spots opium grows to great excellence; the flowers are mostly red, though the Chinese poppy in other districts is generally white. Nothing relieves the monotony of grey crags so gaily as a field of red and purple poppies. Wan-tung is a favourable instance of such dells; but if the traveller turns his back upon the river anywhere near that point, and ascends the hills on the right bank, an hour's walk will carry him away from cultivation, a day's journey will bring him into the thick of pine-forests, and after clearing these he may climb for another day, or longer, to the summit of mountains 17,000 feet above the sea. The Tibetan road, viâ Ta-chien-lu, crosses this range by a pass which, according to Captain Gill, is 14,500 feet above sea-level.

Supposing an explorer to select Tzŭ-ta-ti as his starting-place, and to turn west, with perhaps a little southing, he may ascend the gorge of Sung-lin torrent and march continually uphill for four days, when he will reach an undulating plateau, the pasture-ground of immense herds of half-domesticated yaks. Not a single tree of any kind grows on that highland; every one of my informants specially averred that when the sun shines there is nowhere to be found a patch of shade from dawn to dusk. Beyond the uplands rises a system of forest-clad hills, among which the best rhubarb in China is gathered, and on the further side of these is a valley with a level bottom and a stream some 60 yards broad, called the Wu-la-ch'i. From the Wu-la-ch'i Mien-ning Hsien can be reached without crossing any high range; it may therefore be suspected that its waters are the head of the An-ning river.*

* Maturer consideration leads me to think that the Wu-la-ch'i is that tributary of the Ya-lung which rises in the Cheh-to Pass.

Perhaps the traveller may prefer to take his outset from T'ien-wan for an exploration of these wild ranges, and to ascend the course of the torrent which flows by that village. The prospect of the track he will have to follow will be likely to dissuade him from the attempt half an hour after starting. A zigzag line of foam roars along a fissure between two rows of precipices which interlock one another. The way through is by clambering from rock to rock in the stream; there is no path; nor is there any means of outflanking the precipices, the summits of the ridge being more like the spikes of a prison-wall than the peaks of a mountain. A Sifan who had made the passage told me that it is only practicable for experienced mountaineers unencumbered with baggage. At the western end of the ravine is a fine valley growing wheat, buckwheat, and potatoes, and containing a lake said to be four miles long by two broad, from which the T'ien-wan torrent issues. The Tzŭ-mei Hills, of which we obtained a distant view, lie west of the lake, and beyond the Tzŭ-mei Hills again is the valley of the Wu-la-ch'i.

Less formidable expeditions may be undertaken from Tzŭ-ta-ti. Mien-ning Hsien is made in four days by ascending the Lao-wa Valley, but a high divide has to be crossed, which is difficult for mules. A much easier route to the same city quits the T'ung and mounts the hill-side about two miles below Tzŭ-ta-ti. That village is the headquarters of a Sifan chief, Wang by name, and by title "Ch'ien-hu," meaning "a Thousand Families." There are other chiefs with the style of "Hundred Families." Such designations do not of course intend any precise enumeration of the aggregate of the families under their jurisdiction, but they are, nevertheless, apt to confuse the uninitiated. When, for instance, one meets an "Eleven Hundred Families," it is natural to conclude that such a dignitary must be of more exalted rank than the chief of a thousand. But the error would be gross, "Eleven Hundred Families" being merely the style borne by the eleventh son of a chief of a hundred families. These terms are probably of Chinese invention, since they are also conferred on Lolo potentates. The well-known name *T'u-ssŭ* means aboriginal district, as well as aboriginal chief, and seems to be a general title, employed when precision is unnecessary. Wang's correct Chinese official title is *Hsüan-fu-ssŭ* (officer for diffusing control) bestowed upon him for distinguished services against the T'ai-pings. I did not make his acquaintance personally, in consequence of a delicate question of etiquette; he was afraid to *kotow* to me, and at the same time feared to refuse the obeisance, being apprehensive, as he privately gave me to understand, that his Chinese superiors would in either case disapprove his conduct. Many messages, however, passed between us. Finding that I spent much time at Tzŭ-ta-ti in sextant observations, he sent to ask if there was any underground gold in his village.

These notes on the Upper T'ung were collected, it should be remarked, during a second journey in the spring of 1878. On returning

from Tzŭ-ta-ti I lost all my funds by a burglary at Na-erh-pa, just outside Wang's jurisdiction. The chief burglar escaped across the T'ung into the wildest part of the Ch'ing-ch'i magistrature, and when the local authorities were induced, after an appeal from me to headquarters, to make an effort for the capture of the culprit, the officers of justice started on his trail with two packs of hounds to pursue him, and a set of iron grapnels to seize him. Hearing of my destitute condition, "Wang of a Thousand" sent me, kindly enough, the sum of 7*s.* 6*d.* and a basket of eggs, with a message explaining that many of the country people are affected with leprosy, and that it is therefore dangerous to eat the eggs which are sold in the markets. The spittle of lepers, it appears, is pecked up from the ground by the poultry, which soon become lepr[illegible]-lay leprous eggs, and so transmit the contagion to the unwitting traveller. Circumstances which I need not recount led me, some days after the receipt of this timely but inadequate present, to make a second visit to Wang's residence, but I found no opportunity of thanking him; he had gone to avenge an outrage which concerned him more nearly than my losses, namely the desecration and plunder of his father's grave. It was the evening of a market day when we returned to Tzŭ-ta-ti, and it is regrettable to relate that most of the Sifan visitors were drunk. But they are, withal, courteous in their cups. The Sung-lin affluent is crossed by a wire suspension bridge, some 120 yards long, an oscillating and vertiginous structure at best, on which it is difficult to pass a drunken man. Several unsteady Sifans, however, made way for me, and one, a good deal more than half seas over, who assured me that "he was drunk again," would not be dissuaded from escorting me across. Near the bridge I gathered a specimen of manners and customs. A young Sifan woman was lying on her stomach in the roadway, a second woman, her sister, sitting on her back and holding her firmly by the pigtail, while a very robust Sifan, her husband, was beating her about the hips with a large chunk of granite. Interference in such family misunderstandings is best made vicariously, so I directed two of my coolies to intervene, which they did with excessive zeal, carrying the husband by storm and knocking him down. I made them help him up, and then sit with him, one on each side, on a low stone wall, holding his sleeves and sitting on his coat so that he could not rise; but while our attention was too exclusively devoted to calming his excitement, his wife rushed forward and tore a strip of skin down his neck with a stroke of her nails. She made no resistance when we drew her back, but ran off and rejoined her sister. As soon as she had left, her husband, to our great astonishment, became perfectly composed and amenable, actually thanking us for our interposition, which he said he fully appreciated, and entered into discursive details respecting the origin of the tiff. He spoke mongrel Chinese, and I could only understand that the party were returning from the trial of a law case, in course of which the wife had

given evidence on the wrong side, and they were now settling the case out of court. The sister, it appeared, was sitting on the wife and holding her tail as a token of condolence with her under punishment, and not as showing any sympathy with the extreme views of the husband. The latter, while insisting that his wife was a bad woman, promised not to beat her any more for present shortcomings, and went off home. I afterwards met the wife and sister, who looked at me seriously and sadly, but without surprise. The oddity of the affair is that both should so calmly have accepted our unwarrantable interference.

One does not see much of the Sifans between Tzŭ-ta-ti and Ta-chien-lu, since the bottom-lands through which the route passes have been rented or bought by Chinese colonists. The immigration is quite recent. I have it on the best authority that the Sifan landlords of Mo-si-mien could not be prevailed upon to allow their Chinese tenants to cultivate rice until 1876. The Mo-si-mien valley, or plateau—either term is applicable—is so singular a formation that a digression thither will be pardoned. I came down upon it from the pass north of Wan-tung, on the summit of which—8000 feet above sea—there is a magnificent fragment of virgin forest, untouched as yet, though closely threatened, by the woodman's axe; not a sombre and cheerless forest of pines, but a growth of many varieties of trees, among the middle branches of which we saw huge globular bunches of parasitic flowers. Descending from this, we struck a milk-white river, which guided us to Mo-si-mien; but instead of lying in the bosom of a glen, as we expected would be the case, the village is perched on the end of a long mound which rises from the floor of a narrow valley between two unfordable torrents. The end of the mound, beneath which the milk-white stream and the two torrents unite, looks like the bows of some immense ship, ready for launching into the foaming waters which wash its forefoot. The deck, so to speak, is level, and the village occupies the forecastle. The sides seem vertical, at any rate from the route by which we approached, but the appearance is illusory, and we easily ascended by a steep zigzag path. Seeing that the valley bore almost in the direction in which Ta-chien-lu should lie, I determined to keep to it, instead of rejoining the T'ung—which is not far distant—and following the main route by Lu-ting Bridge. The mound in question turned out to be more than three miles long, by a quarter of a mile or so in average breadth, and some 250 feet, or more, high; the surface, generally level, but undulating, is sprinkled with a good many loose rocks of large size—I noticed some of more than 2000 cubic feet—but the mass of it is earth, to all appearance, and I could not discover any rock *in situ*. The two currents run parallel to one another, as will be seen from the chart, on which, for the sake of clearness, it has been necessary to separate them more widely than the truth.

Near the hamlet of Lama-ssŭ, this curious ridge gradually effaces itself to the level of the valley. Its proportions are so great that it did not occur to me, while marching along it, to reflect upon its origin; nor did I know, at the time, that we were beginning the ascent of a range covered with perpetual snow. But after entering the pine forests which begin a little above the hamlet of P'u-tzŭ, it struck me that we had been travelling along the central *moraine* of an extinct glacier; a reference to the chart will show that the tail of the mound springs from a mountain spur between two valleys in precisely the manner which such a formation requires. The lateral moraines would have formed the further banks of the existing torrents; but under the circumstances I did not happen to look for them, and in any case they would have been undistinguishable from the hillsides, covered as these are with long grasses. Moreover, when the enormous glacier finally melted away, the side moraines, previously propped up by the ice, would have slid down into the beds of the present torrents, in which there are enough rocks, indeed, to satisfy the most exacting demands on that head. The central moraine, on the other hand, would merely have subsided without losing much of its mass.

Whatever may have been the origin of the mound, it is well worth the attention of future explorers. The place is not more than a day's journey from the point where the Hua-lin-p'ing road strikes the T'ung, and the traveller who is on his way to Ta-chien-lu may very conveniently send his baggage on by the main road, while himself diverging into this bypath with sufficient necessaries for three days, and so gaining Ta-chien-lu over the *col* of Ya-chia-kang. He will thus reach the town almost as soon as his baggage, and in the pine forest and snowy pass will obtain a foretaste of Tibet.

Not to prolong this digression unduly, I will merely add that we walked for two days up the easiest gradient in the world through dense pines, from the branches of which hung, almost like veils, long streamers of a kind of moss locally called Mu-lu-ssŭ—probably the "fairies' scarf" mentioned by Mr. Cooper—imparting a blue-green tinge to every vista which the never-failing fog would allow us to perceive. A scarlet lichen clothed in many places the rocks which strew the watercourses. At 11,000 feet the pines fade away, but the rhododendrons are so thick that it is not easy to stray from the path. Near this point a kind of francolin walk across the track with the deliberateness of poultry. We attempted in vain to put them up, although we could openly approach them to within six or seven yards; indeed, we went to the length of trying to catch a specimen, with the purpose of throwing him up in the air to see if he could fly. The rhododendrons were too close, and the birds far too clever, to allow of a capture, but I shot a brace with a revolver, by way of giving them law, which is a sufficient proof of their tameness. The highest hostel, a miserable cabin, where firewood is not

to be obtained, since the spot is well out of tree-limit, lies at 11,700 feet above sea. Beyond this the path becomes steep, vegetation disappears, with the exception of a few sticks which look like abortive rhododendrons, and we soon reach the *col* of Ya-chia, 13,000 feet above sea and 4600 feet above Ta-chien-lu. Although there are higher passes in the same range—the Cheh-to of Captain Gill, written Jeddo by Mr. Cooper, is 1500 feet higher—Ya-chia-kang enjoys a pre-eminent reputation for its violent and asphyxiating winds, and is said to be the only pass in the neighbourhood which "stops people's breath" (*hang jên*). The passage is much dreaded in windy weather on this account; but although it was nearly calm when we crossed, we were nevertheless affected in various ways by the rarefaction. One of the porters began to gasp and grow black in the face, but a short rest brought him round. A more curious adventure befell a Sifan who was acting as my henchman, and was burdened with nothing but an overcoat. Happening to require the garment, and turning round to take it from him, I saw him standing motionless in the snow 200 feet behind. As he would not stir when called, I went back to see what had happened to him, and found him fast asleep, all standing. On being waked he complained of nothing but a sensation of drowsiness, which he soon shook off. My own experience was a pleasant one; a headache, which had come on at about 11,000 feet, disappeared completely as the top was neared, but returned during the descent. We saw almost nothing from the summit; the usual mist enveloped us, but a narrow break, opening through it like a tunnel, showed us for a few moments in the south-west a high, jagged peak of the purest and brightest silver, overtopped by the moon, and backed by a patch of pure sky. Framed in very narrow compass by the rim of white fog, the picture was most magical and unearthly; even the stolid Chinese waxed rhapsodical, and cried, "Silver, silver!" but as they think of nothing but silver all their lives, their enthusiasm may have been gross and worldly.

The snow clears off the *col* in May, but as we went down the mountain, which is seamed by the most savage torrent gorges, we left the fog behind, and could see that we had passed between peaks and crags of great elevation. The snow never melts from these, and their height may therefore be assumed to be more than 17,000 feet. North of us, on the other side of Ta-chien-lu, stretched a wide expanse of snowfields and ridges, probably of still greater height. In a few hours we struck the high road to Tibet, at the foot of the Cheh-to Pass, after strolling along a treeless pasture where a herd of yaks, the property of the king of Djia-la, were grazing, and soon trudged into Ta-chien-lu, a small town lying at the western end of a very narrow valley, so narrow, indeed, that for miles together it has no floor but the path and the torrent, which, after 15 miles of cataracts, plunges into the T'ung at Wa-ssŭ-kou; a mere gorge, in short, between two snowy spurs of the range over which

the Cheh-to road passes. One of these spurs is that which we have just crossed, and the other is the region of sierras and snowfields which we saw from Ya-chia-kang.—But Captain Gill will not thank me if I encroach further upon his ground.

That stretch of the T'ung which runs from Wa-ssŭ-kou to Tzŭ-ta-ti has the best claim to be considered the boundary between China and Tibet. In an administrative sense there is no doubt on the subject, since the Ch'ing-ch'i magistrature extends to the left bank, while the right bank is the territory of indigenous chiefs—T'u-ssŭ. Geologically, the same demarcation obtains; the river runs along the line where limestone gives way to granite. The first intimation of the change appears near Tsai-yan-ch'i, on the left bank, where the rock is syenitic porphyry; but a mile or two west of this is a gap of limestone, in which coal is mined, and a little further west, opposite Na-erh-pa, a bluff of pumice abuts on the river. We were told that if the hillside above the spur of pumice be ascended, a hollow full of water will be met with, on the brink of which tradition warns the wayfarer not to talk aloud nor to linger, but to pass on. Such legends often attach to volcanic chasms or craters. What may be the nature of the rock west of this point at the great bend of the T'ung, and on its left bank, I had no opportunity of examining; but from the shape of the hills, and other intimations, it may be judged to be the same as on the opposite bank a short distance above Lao-wa-hsüan, viz. syenite of a fairly close grain. It is by this promontory of syenite, a toe of the Himalayan plateau, if the expression may pass, that the river, or rather the fissure in which it flows, has been abruptly turned athwart into an eastern course. Near Tzŭ-ta-ti limestone reappears, but about Hei-lao-wa comes granite, with a pronounced tendency to disintegration.

Gold is washed above Lu-ting Bridge, in the manner described by Captain Blakiston on the Upper Yangtzŭ. It is also found in nuggets, occasionally of large size, in the border country. At the turn where the highway to Ta-chien-lu leaves the T'ung (i. e. at Wa-ssŭ-kou), gold-borings driven into the rock may be seen on the further bank. I could not approach the place; but the gold was offered me for sale in the shape of pills of clay, full of minute scales of the precious metal. Quite lately, gold has been discovered close to Ta-chien-lu, and the rush of diggers has caused a good deal of embarrassment to the authorities.

Sulphur is procured in saleable quantities from the mountains round Ta-chien-lu; the inhabitants of the ravines may often be seen engaged in the manufacture of matches of the Guy Fawkes pattern, which they split from a pine-plank with a spokeshave, and tip with sulphur. During my penniless residence at Na-erh-pa, I generally used these sulphur chips to procure a flame.

North of Wa-ssŭ-kou the T'ung is called Chin-ch'uan ("gold stream"), a term which is also applied to the district which it drains, governed by

local chiefs, and divided into Greater and Lesser Chin-ch'uan. Nothing whatever is known of it to Europeans, including myself, except that the country was conquered by the generals of Kien-lung, in 1775, after a most determined and heroic resistance on the part of the natives. The story will be found in De Mailla's History, where the people are very misleadingly called "Miao-tzŭ"; there is no doubt that they are a branch of the Sifan, again a misleading term, which I shall be obliged to employ, but which means neither more nor less than what we understand by "Tibetans," though of course there are many tribal subdivisions. I will recur further on to the ethnological question.

However romantic and charming to the traveller's view may be the situation of the villages in this wild region, the inhabitants are exposed to calamities by flood and fire which must render a prolonged residence undesirable. We assisted at a conflagration which nearly demolished Na-erh-pa, and passed many a hamlet which had only lately risen from its ashes. The dwellings are all built of wood, and are situated on the border of torrents, often in very hazardous positions. The Liu-sha-ho ("sand-shifting river") is notorious for its excesses; on a second journey to Fu-lin I crossed a bed of shingle where, a year before, I had passed through teeming rice-fields. The most memorable accident by flood occurred in 1786, when a cliff fell into the T'ung somewhere near Wan-tung, and completely dammed the stream. Warning being duly sent through all the lower country by the local officials, the natives of the gorges, well able to appreciate the danger, took to the hillsides; but the people of Chia-ting Fu, trusting in the breadth of their plain, over which they imagined the water would harmlessly diffuse itself, disregarded the notice, and the cry, "Shui lai-la" ("the water is coming") even obtained great vogue as a street joke. It was holiday in Chia-ting some days after the receipt of the notice, and the light-hearted crowds which gather on such occasions were chiefly attracted by a theatrical representation on the flat by the water-side. One of the actors suddenly stopped in the middle of his *rôle*, and gazing up the river, screamed out the now familiar by-word, "Shui lai-la!" This repetition of the stock jest, with well-simulated terror, as it seemed to the merry-makers, drew shouts of laughter; but the echoes of the laugh were drowned in the roar of a deluge. I was told how the gleeful faces turned to horror as the flood swept on like a moving wall, and overwhelmed 12,000 souls.

There can be no doubt of the main truth of the story, though the number of victims must be greatly exaggerated. 12,000 souls would represent little less than half the population of Chia-ting. The people of the country are fond of relating the story of the theatre, as they well may be; for among records of disaster it would be difficult to find a more dramatic catastrophe.

Leaving Fu-lin, we crossed the famous ferry from which the T'ung takes its local name of Ta-tu ("great ferry") on August 18th. A detour

of some distance has to be made into the eastern gorge to avoid a series of rapids. When the ferry-boat came alongside the usual crowd of passengers tumbled in, all attempting to sit on the same side; and even our pet monkeys, which I found very useful in diverting native attention from my own vagaries, showed signs of not unreasonable alarm. When we stepped ashore, we were in the nondescript region of Chien-ch'ang.

In Ta-shu-p'u, a fortified village a mile or so south of the ferry, we were eye-witnesses of the devastation which a swollen brook may cause. A fortnight before our arrival a fall of hail was succeeded by a violent storm of rain and lightning, and, soon after, a great rush of water from the plateau on the east suddenly issued from a previously dry gully and entered the bed of an insignificant rivulet which runs from the south towards the little town. The fierce flood, urging along masses of rock, utterly destroyed the suburb, burst in the iron-plated town-gate, which had been vainly closed in its way, and drowned or crushed some 200 people who were attending the market. So much is what we were told. What we saw was the battered gate lying inside the wall; a limestone boulder of about 20 cubic feet obstructing the archway where the gate ought to have been; and, outside, a double heap of débris, 120 yards long, representing the houses of the suburb. The street-way of the suburb was all furrowed and disjointed, as if it had been scratched by an immense harrow. Repairs had hardly been begun; but a little further on a fine dyke of cemented blocks was in course of construction, the massive nature of which—it is to be 10 feet thick by 12 feet high—inspires great respect for the gutter which requires such a kerb-stone.

But Ta-shu-p'u can afford to regard with placidity the sudden death of a few hundred market-people, after the scene of slaughter it witnessed fourteen years previously. At the risk of overcrowding these pages with tales of calamity and massacre, I am bound to recite the story—rather, the history—of a crowning mercy which cannot fail to interest those who sympathised with, or who opposed, the rebellion of the Taipings. What became of Shih Ta-k'ai, the assistant king? is a question which foreigners have often asked. I found a reply on the banks of the T'ung. The following account, taken from official sources hitherto unexplored, gains additional importance from its geographical allusions. Most of the localities mentioned occur in my chart; the remainder are indicated in notes.

"In January 1863, after having been routed in a series of engagements on the Hêng river (the stream which enters the Yangtzŭ on its right bank between Sui-fu (Sü-chow) and P'ing-shan, Shih Ta-k'ai, the most ferocious and crafty of the rebel kings, formed his troops into three divisions, one of which he sent from Fu-kuan-ts'un into the province of Kuei-chou. (With this division we are not further concerned.) His lieutenant, Lai Yü-hsin, was despatched into Chien-ch'ang with the second division, Shih Ta-k'ai himself intending to follow with the main

body. Lai's corps of 30,000 or 40,000 men accordingly marched to Hui-li-chou (by what route does not appear), and thence to Tê-ch'ang, where a great many recruits were gained among the opium traders and disorderly characters of the neighbourhood. They reached Ning-yuan Fu on the 16th of March, but were defeated next day, with a loss of 2000, by an Imperialist force; still pressing on, they made an unsuccessful assault upon Mien-shan on the 21st, and were again worsted at Yueh-hsi T'ing, losing their leader, Lai Yü-hsin, who was killed by a Lolo with a stone. Hurrying forward in great disorder, they crossed the T'ung on the 26th, and continued onwards by Ching-ch'i Hsien and Jung-ching Hsien into the T'ien-ch'üan country, through which they passed into Northern Ssŭ-ch'uan." (There they seem to have dispersed, whether of their own intent, or in consequence of repeated attacks, is not clear; but it is fairly certain that a large proportion made off into Shensi and Kansu.)

Shih Ta-k'ai, "careless of distance or danger, and always on the watch for an opening," had sent forward this division to divert attention from his own movements, expecting, it was presumed, that the Imperialist forces would follow in hot pursuit, without looking to their rear or concerning themselves with the possible advance of a second rebel corps. The Governor-General Lo Ping-chang, however, foresaw the design, and made dispositions to frustrate it. In his Memorial on the subject he remarks that "the importance of occupying all the approaches from Chien-ch'ang became evident. The T'ung river, the natural protection of the south-western frontier, rising in the country of the Tien-ch'üan tribes, runs through the Yü-t'ung region, past the Wa-ssŭ Ravine and Lu-ting Bridge, into the Lêng-pien * and Shên-pien districts, traverses the magistrature of Ching-ch'i, and then enters the Lolo territory. We had therefore to guard the line from An-ch'ing-pa † to Wan-kung, a length of more than 200 *li*, including thirteen ferries, exposed to an advance both by the Yueh-hsi road and the track viâ Mien-ning Hsien. And besides this, it was indispensable to hold the line from Lu-ting Bridge to Wan-tung, since there are many places at which the rebels might have crossed the T'ung, supposing them to have previously passed the Sung-lin affluent; a wide flanking movement in that direction would have enabled them to gain the T'ien-ch'üan country.

"A detachment was accordingly sent, under T'ang Yu-kêng, to act between An-ch'ing-pa and Wan-kung; and Wang, chief of a thousand families in the Sung-lin district, was directed to keep the Sung-lin

* *Lêng-pien* and *Shên-pien* are Tu-ssŭ districts respectively north and south of Hua-lin-p'ing. Shên-pien contains very few aborigines. Yü-t'ung is a tribe of the T'ung valley, a little above Wa-ssŭ-kou.

† An-ch'ing-pa is a fertile plateau and village on the left bank of the T'ung, opposite Tzŭ-ta-ti, two or three miles inland. Wan-kung is an insignificant hamlet a few miles east of the ferry below Fu-lin.

affluent with his aboriginal forces, with a view to prevent a turning movement upon Lu-ting Bridge and Hua-lin-p'ing. Another detachment was stationed in reserve between Hua-lin-p'ing and Wa-ssŭ Ravine; and, lastly, a corps was posted at Mo-si-mien to stop any advance upon Ta-chien-lu.

"Lai's band had by this time escaped into Shensi. After measures had been taken to cut off their return, the Lolo chief Ling was directed to occupy the Yueh-hsi passes, so as to prevent Shih Ta-k'ai from entering the Lolo territory. Presents were at the same time distributed among Ling's Lolos and the aboriginal troops of 'Thousand Family' Wang to encourage and stimulate their zeal.

"T'ang Yu-kêng's force reached the T'ung on the 12th of May, Shih Ta-k'ai having in the meanwhile crossed the Upper Yangtzŭ at Mi-liang-pa, entered Chien-ch'ang, found the Yueh-hsi main road blocked, took the alternative route by Mien-ning Hsien, and so descended, on the 15th, with 30,000 or 40,000 men upon the village of Tzŭ-ta-ti, in the district governed by Thousand Family Wang, at the confluence of the Sung-lin with the T'ung. During the night both streams rose several yards in consequence of heavy rain, rendering the passage dangerous, and the rebels began to construct rafts. They made a reconnaissance of the crossing on the 17th, and on the 21st sent down a party 4000 or 5000 strong, carrying 'several tens' of boats and bamboo rafts, upon each of which 'several tens' of the most desperate embarked as a forlorn hope, covered by shields, and advanced to force the crossing. The whole army came out of their huts to support them from the bank and cheered them on with howls which echoed down the gorges like peals of thunder. Our men, however, stood fast, and when the enemy had reached mid-channel opened a steady fire, which killed several chiefs in red uniform and exploded a powder magazine on one of the rafts, hurling the rebels pell-mell into the water. A few rafts which had been carried away by the current were followed up from the bank and sunk, and not a soul of the attacking party escaped alive.

"Nevertheless, during the following night the rebels again reconnoitred the crossing, and appear to have satisfied themselves that it could not be carried. Thenceforward they confined their efforts to the passage of the Sung-lin affluent, with the object of gaining Lu-ting Bridge, and invading the T'ien-ch'üan region, but they were repulsed time after time by Thousand Family Wang, and lost several thousand men in the attempt.

"On May the 24th, Ling, coming up with his Lolos from Yueh-hsi, fell upon the rear of the rebels near Hsin-ch'ang, and after repeated attacks captured their camp on Saddle Hill * on the night of the 29th. From that moment the rebel case became hopeless. After a futile

* Saddle Hill (Ma-ngan-shan) is an eminence on the right bank of the T'ung, a short distance below Tzŭ-ta-ti. The village of Hsin-ch'ang lies on its western slope.

attempt to gain over the native chiefs Wang and Ling, Shih Ta-k'ai, furious at finding himself involved in a situation from which escape was impossible, slaughtered 200 local guides as a sacrifice to his banners, and on the night of the 3rd of June attempted to force the passage of the main river and of the affluent simultaneously. Both assaults were again repulsed. After killing and eating their horses, the rebels, now reduced to the last extremity of famine, were allaying their hunger by chewing the leaves of trees; nevertheless, on the 9th of June they made another general attack upon the crossings, but all their rafts were either sunk or carried away down the swift current.

"The end had come. 'Thousand Family' Wang, reinforced by the Mo-si-mien detachment, passed the Sung-lin on the 11th of June, and assaulted the rebel quarters at Tzŭ-ta-ti. At the same time the Lolo auxiliaries, coming down from Saddle Hill, advanced upon the rear of the position, which was thus completely enveloped. Thousands of the insurgents were killed in the actual attack; but all the approaches to the place being commanded by precipices and confined by defiles, the fugitives became huddled together in a dense mass, upon which the regulars kept up a storm of musketry and artillery, while the Lolos occupying the heights cast down rocks and trunks of trees, which crushed them or swept them into the river. More than 10,000 corpses floated away down the T'ung.

"Shih Ta-k'ai, with 7000 or 8000 followers, escaped to Lao-wa-hsüan, where he was closely beset by the Lolos. Five of his wives and concubines, with two children, joined hands and threw themselves into the river, and many of his officers followed their example. As it was indispensable to capture him alive, a flag was set up at Hsi-ma-ku* displaying the words 'Surrender, and save your lives,' and on the 13th he came into the camp, leading his child, four years of age, by the hand, and gave himself up with all his chiefs and followers. Some 4000 persons who had been forcibly compelled to join him were liberated, but the remaining 2000, all inveterate and determined rebels, were taken to Ta-shu-p'u, where, on the 18th of June, Government troops having been sent across the river for the purpose, a signal was given with rocket and they were surrounded and despatched. Shih Ta-k'ai and three others were conveyed to Ch'êng-tu on the 25th, and put to death by the slicing process; the child was reserved until the age prescribed by regulation for the treatment of such cases."

The above is a condensed extract from an official report contained in the Memoirs of Lo Ping-chang, Governor-General of Ssŭ-ch'uan. The main facts are unquestionably authentic, but the story is of course written from the Imperial point of view, which regards all opponents as bandits and miscreants, who can hardly hope to escape condign

* Hsi-ma-ku lies on the Lao-wa river, some seven miles south of Lao-wa-hsüan.

vengeance. It is therefore vain to expect from it any trustworthy indication of the plan of campaign which guided Shih Ta-k'ai in making these extraordinary detours, or any faithful account of the causes which brought about so complete a disaster; but from inquiry along his line of route, I am satisfied that the explanation is not far to seek. The cause of his action was his inability to cross the Yangtzŭ at or near Sui-fu. The neighbourhood of the Hêng river is a barren region of rocks and ravines, which his large force must very soon have "eaten up"; leaving out of the question the Imperialist statement, which does not deserve much credit, of his defeat in that district, it is evident that his supplies must soon have failed, and that he could not have long maintained his position. Under such circumstances a sudden march upon Ch'êng-tu by Hui-li-chou and Chien-ch'ang offered several advantages. It would at the outset have the appearance of an acceptance of defeat and of a retreat into Yunnan, thus putting the Imperialists off their guard; it would be a march through an undefended district; and by the sudden return up the Chien-ch'ang Valley Ya-chou would be surprised, and the approaches to the capital of the province, and its fertile plain, carried without much difficulty. The superfluous and less efficient part of the rebel forces was therefore sent on an expedition into Kuei-chou, and with the view of drawing off the Imperial troops Lai's command was ordered to advance through Chien-ch'ang.

Curiously enough it was the very inactivity and unreadiness of the Provincial Government which defeated these promising tactics. Lai's division, so far from drawing off Imperialist attention, took the Governor-General by surprise, and passed through almost without molestation; so unimpeded indeed was their march, that I heard of cases where the main body turned back deliberately to avenge insignificant attacks upon stragglers in their rear. Not until Lai had entered Chien-ch'ang did the Governor-General surmise that his capital was exposed to be taken in reverse by such a movement. The dispositions described in his Memorial were in reality made to stop Lai's passage, but came all too late for that purpose, though in the nick of time to prevent Shih Ta-k'ai's advance, which was quite unexpected. It was then only necessary to close the pass—about two yards wide—which leads from Lu-ku to Yueh-hsi, thus forcing Shih Ta-k'ai's army to ascend the main valley, at that point alluringly broad and easy, to Mien-ning Hsien, and so to become gradually involved in the inextricable gorges which border the T'ung. If the river could be held, the rebel force must then inevitably perish from mere starvation.

Only a personal knowledge of the country and of the tribes which inhabit it could have enabled the rebel chief to foresee these dangers. He was utterly ignorant of such details. He probably expected that the Lolos and Sifans would join him or remain neutral, or—as is more likely—with the usual conceit of the Chinese, who esteem themselves

the only fighting people in the world, made little account of their opposition. But it is certain that all the credit of his crushing defeat and surrender is due to these hill tribes, who fought purely for their own hand, and with their exact knowledge of the local defiles and approaches easily cut off the rebel supplies, and then made short work of the blockaded starvelings. In the Governor-General's Memorial cannon, musketry, and rockets play a conspicuous part, but from all I could learn from the natives the battles were mostly conducted with such primeval artillery as bows and arrows, stones, rocks, and tree-trunks.

4. The Chien-ch'ang Valley.

Chien-ch'ang, otherwise the Prefecture of Ning-yuan, is perhaps the least known part of the Eighteen Provinces. Two or three sentences in the book of Ser Marco, to the effect that after crossing high mountains, he reached a fertile country containing many towns and villages and inhabited by a very immoral population, constitute to this day the only description we possess of *Cain-du*, as he calls the district. The fact of its being unexplored is sufficient, without the other inducements held out by the generally sedate Venetian, to make it "a very pleasant country for young fellows to go to."

Our first plunge into the unknown did not, however, greatly prepossess us with its attractions. We ascended a narrow glen between treeless hills sparsely grown with maize to a pass about 2000 feet above the T'ung, then dropped 1000 feet to the bed of a torrent which disappears through a wild gorge to the west, and ascended again to the village of P'ing-i-p'u, bordered by a few rice-fields. Although the vale seems very unproductive, the water-mills for grinding corn are numerous enough to reassure one with respect to the food supply; no doubt a certain cultivation of the ravines on both sides of the route brings a reinforcement of grist. The mill-wheel lies horizontally; and the water, admitted by a side-adit, strikes the spokes, which are planks offering their faces to the current, and so drives a mill-stone having the same axis as the wheel.*

The latter part of the day's route is rendered dangerous by falling rocks. Many loosened masses lie on the hillsides ready to shoot suddenly down on the hollow way from slight disturbing cause. Near the village we passed the corpse of an unlucky pony which had been battered to death in this manner, and were told that four mules, valued at 70 dollars apiece, had lately been crushed near the same spot. After Ta-wan is passed the precipices close in upon the stream leaving barely sufficient space for a narrow path which works along under a wall of rock. The more dangerous bluffs line the further brink of the torrent;

* This is the mill-wheel employed in the Himalaya, in Norway (I believe), and in Sicily; probably in other parts of the world. In the Himalaya it is called *grât*, a word surely identical with *grit* and *groat* in spite of Grimm's law!—[H. Y.]

where a glance into its bed is possible through the border of ferns and wild flowers one sees that it is crowded with blocks whose fresh angularity shows that they have toppled from the heights. In some places such stony cascades have cleared the stream and shot across upon the pathway. Here and there the bluffs under which the way winds not only overlean but even hang down pendulous masses, not of honest limestone, but of a very coarse conglomerate of that rock with pebbles and earth full of spreading roots. The wayfarer has twice or three times to stoop his head under such clusters, and although there is no danger at all he draws a freer breath after passing.

The precipices are not high; the highest is perhaps 200 feet. But the inaccessible hill-tops above recede very slightly, and rise to not less than a thousand feet above the stream. That they are inaccessible may be concluded from their being covered with forest growth; no Chinese woodman ever spares a tree which he can approach within reach of axe or fire. Shên-kou (deep gully), as the ravine is called, leads immediately on to the little plateau of P'ing-pa, and through the village of the same name, a straggling collection of wooden huts the inhabitants of which were spending the afternoon somewhere else, possibly at work in the fields. Very little of the upland is tilled; the chief products are barley, maize, buckwheat, and two kinds of tobacco, the *lan hua* and the *ch'erh*. The latter has a shorter and rounder leaf than ordinary tobacco, and affords a much more powerful narcotic. It is said to grow best at high elevations. The few people we met were dressed in woollen cloth of two kinds; one a coarse Tibetan frieze, and the other a close but rather hard fabric woven by the Lolos. Crossing the plateau between low hills denuded of timber, although through the gaps we could see clumps of trees, the groves in which the Lolos burn their dead, we ascended very slightly to a "divide" 7800 feet above sea, at which point we entered upon that part of the road which is considered to be most endangered by Lolo incursions. And in fact a few miles further on we reached a station occupied by a small garrison of Chinese and subject Lolos who keep constant watch against the marauding mountaineers. Spears and firelocks hang ready to hand under the eaves of the pine-built cabins all along the little street; vigilant communication is maintained with the sentinels on the hill-crests, and several of the garrison carried the match for their firelocks coiled in readiness round their wrists. We had met no Lolos before this. The few representatives of that persistent nationality which we here saw, though acknowledging allegiance to the Chinese, and speaking Chinese fluently, retained their native costume in its integrity, and evidently admitted no inferiority to their Chinese comrades in arms.

The post commands a grand prospect of a wide open valley, the trough of an affluent of the T'ung, the only view of Lolo-land anywhere obtainable down the whole length of Chien-ch'ang. The valley runs

approximately from south-west to north-east. Its southern boundary is a long level ridge extending as far as the sight can trace, its crest and upper slopes covered with forest, and its spurs cultivated. It rises in all probability to 11,000 feet and may be surmised to be the western incline of the snowy central ranges of Lolodom, heights of which we afterwards gained a perspective from the further bank of the Upper Yangtzŭ.

We dropped down a boulder-strewn path in half an hour to Hai-t'ang, otherwise Ning-yueh, a small frontier town confided to the charge of a major, whose action is unhampered by the presence of any civil authority. Seven hundred soldiers, under his command, are distributed among various posts in the neighbourhood and receive 3200 cash—say 11*s.* a month per man. The town and all the hamlets many miles beyond are simply garrison stations containing inns for traders and traffic. We did not pass, during the day's march to this place, a single package of merchandise, but were told that in this part of the route goods are detained until a company assembles of sufficient strength to protect itself from Lolo attacks.

The situation of Hai-t'ang is likened to the bottom of a bowl, the rim of which is surrounded by Lolos. A deep gully, however, leads directly down into the valley above mentioned. About six miles from Hai-t'ang, passage is said to be barred by a river which no Chinaman is suffered to pass unless he has found a Lolo to go bail for his good conduct. The Lolos themselves swim or wade across, according to the season, and with the aid of a rope climb a bluff which forms the further bank. Inquiry at many places on the border invariably elicited the assurance that Chinese traders that enter the country under bail are safe from molestation, and make good profits. In matters of trade the Lolos are simple and conscientious, but at the same time they will not calmly endure sharp dealing, still less evident trickery or bad faith.

We climbed out of "the bowl" on to a down, two miles or less in breadth, bordered by low hills on which a few patches of forest survive. The land is very scantily cultivated; the sparse hamlets are all fortified and there are no detached farm-houses; the inhabitants are almost without exception soldier-colonists. Travelling along the level uplands we frequently met well-clothed soldiers in uniform, armed with firelocks, spear, or bow with thick sheaf of arrows, and sometimes carrying all these muniments. They told me that they lived easily, tilling as much land as they pleased at a nominal rent. The extent of waste ground which might be grown with maize, buckwheat, and potatoes, is certainly surprising to one who has but lately quitted the crowded furrows of Ssŭ-ch'uan.

While we were at breakfast several border Lolos gathered round and I had a good opportunity of considering them. They are a far taller race than the Chinese; taller probably than any European people. During the journey we must have met many hundreds of them, but we

never saw one who could be called, even from an English standard, short or undersized. They are almost without exception remarkably straight-built, with slim, but muscular limbs; many of them are robust, but anything approaching the pork-fed obesity of an affluent sedentary Chinaman seems unknown. Their chests are deep, as becomes mountaineers; the speed and endurance with which they scale their native mountains is a prodigy and a proverb for the Chinese. Their handsome oval faces, of a reddish brown among those most exposed to the weather, are furnished with large level eyes. Prominent but not exaggerated cheekbones, an arched but rather broad nose, an ordinary mouth somewhat thin lipped, and a pointed and characteristic chin from which the beard has been plucked. The same process has denuded the upper lip, which is of good proportion. Their teeth are remarkably white and regular, a preservation for which they account by asserting that they never eat roast meat, but always boil their food. Perhaps the most marked character of their faces is a curious tendency to wrinkles, especially on the forehead, which is low, but broad and upright. The lowness of the features may be merely an illusive appearance, since it is overshadowed by a peculiar style of hairdressing. With very rare exceptions the male Lolo, rich or poor, free or subject, may be instantly known by his *horn*.* All his hair is gathered into a knot over his forehead and there twisted up in a cotton cloth so as to resemble the horn of a unicorn. The horn with its wrapper is sometimes a good nine inches long.† They consider this *coiffure* sacred, so at least I was told, and even those who wear a short pigtail for convenience in entering Chinese territory still conserve the indigenous horn, concealed for the occasion under the folds of the Ssŭ-ch'uan turban.

I heard however of a subject tribe near Lui-po T'ing which has abandoned the horn, as a concession to Chinese prejudices, but without adopting the pigtail; but since the retention of hair on the front of the head would still be regarded as a horn, while if it were allowed to grow on the back it would be construed into a pigtail, they have hit upon the radical expedient of shaving their heads altogether.

The principal clothing of a Lolo is his mantle, a capacious sleeveless garment of grey or black felt gathered round his neck by a string, and reaching nearly to his heels. In the case of the better classes the mantle is of fine felt—in great request among the Chinese—and has a fringe of cotton-web round its lower border. For journeys on horseback they have a similar cloak differing only in being slit half-way up the back; a wide lappet covering the opening lies easily along the loins and croup of the horse. The colour of the felt is originally grey, but becomes brown-black or black, in process of time. It is said that the

* See also Biddulph's 'Tribes of the Hindoo Koosh,' p. 129.—[W. G.]

† See these horns on figures from a Chinese drawing in Marco Polo, Book ii. ch. lviii.—[H. Y.]

insects which haunt humanity never infest these gabardines. The Lolo generally gathers this garment closely round his shoulders and crosses his arms inside. His legs, clothed in trowsers of Chinese cotton, are swathed in felt bandages bound on with strings, and he has not yet been super-civilised into the use of foot-gear. In summer a cotton cloak is often substituted for the felt mantle. The hat, serving equally for an umbrella, is woven of bamboo, in a low conical shape, and is covered with felt. Crouching in his felt mantle under this roof of felt the hardy Lolo is impervious to wind or rain.

Of their women I have unhappily seen few but the younger folk; joyous, timid, natural, open-aired, neatly dressed, barefooted, honest girls, devoid of all the prurient mock-modesty of the club-footed Chinese women; damsels with whom one would like to be on brotherly terms. Several of them, natives of the vicinity of Yueh-hsi, came to peep at me in the verandah of the inn, their arms twined round one another's necks, tall graceful creatures with faces much whiter than their brothers'. They did not understand Chinese, and scampered away when I made bold to address them. But a sturdy Lolo lord of creation, six feet two high—whose goodwill I had engaged by simple words—went out and fetched two armfuls of them—about half-a-dozen. It would have been unkind to presume upon this rather constrained introduction, especially as they were too timid to speak, so I dismissed the fair audience with all decorous expedition. Their hair was twined into two tails and wound round their heads; they wore jackets, and flounced and pleated petticoats, covered with an apron and reaching to the ground.

In disagreeable contrast to these petticoated Oreads an old Chinese scribe sat near my breakfast-table writing letters to the deceased relatives of the Chinese garrison, enclosing paper, stamped in imitation of money, to defray current expenses in the other world. When duly sealed and addressed, these "dead letters" are burnt, and the Post Office order is supposed to have reached its destination. Even the murdered female babies are furnished with funds by this process. Well-to-do people forward, by the same method, servants, horses, and even concubines of paper and stick; and if the deceased has been an opium-smoker, an imitation opium-pipe, with all the apparatus complete, is transmitted to him. The Chinese imagine this odd custom to be Buddhist; but it is more probably a survival of funeral sacrifice. It at once recalls a practice which Herodotus attributes to the Scythians who, "when their king dies, bury with him one of his concubines, his baker, his cook, his groom, his secretary, his horses, and the choicest of his effects." The Chinese have found it more expeditious and economical to burn all such personal property in effigy.

In the afternoon we descended a series of half-cultivated valleys to the camp of Liao-i-p'u, accompanied by an escort of some twenty

privates relieved every two miles by a fresh squad. The guardians of these lone uplands are very different from the ragged rascals who are supposed to guarantee the peace of Eastern China. They are well and even luxuriously clothed in shirt, uniform jacket, blue knickerbockers, fifteen folds—I have often counted them—of cotton leggings, and the true classic sandal, neatly shaped to the sole and bound round the ankle with coloured strings. A broad flapping straw hat covers their cleanly plaited hair. Their weapons, strange to say, are mostly bright, but this is perhaps attributable to the dryness of the climate rather than to soldierly cleanliness. A sergeant armed with a broadsword led the van, and the rear was brought up by a mounted lieutenant. Every alternate private carried a gingall and match, the rest shouldering spears, tridents, or partisans. Here and there on the hillside a long spear flying a white or red banner outside a hut indicates where a sentinel is, or should be, on the alert against the predaceous wildmen.

Many of the subject Lolos along the border are soldiers receiving pay from the Chinese officials. Some of the little village-camps we passed through consisted of no more than six or eight contiguous houses, with a miniature street down the middle, the whole protected by a strong wall. The population throughout this part of Chien-ch'ang has a very martial air. Target practice with the matchlock alternates with archery every evening, on an exercise ground outside the wall. The bow practice is of the usual feeble character, the utmost effective range being 50 yards, with a very high trajectory and wild shooting.

At Liao-i-p'u we met a few individuals of a Sifan tribe which lives to the west of Chien-ch'ang. The men are dressed much like the Chinese, but, though intelligent and approachable, seem an inferior race to the Lolos. I learnt from one of them that they do not weave woollen cloth, but buy it from the Lolos—a statement which may be doubted. The same informant told me that his people can make themselves understood, with some difficulty, by the Tibetans at Ta-chien-lu. Pleased with my curiosity, he produced from his breast an amulet written on stout paper, which he said contained his name and certain Buddhist charms. Such an amulet is bought from the lamas by every Sifan, at a cost of about 5*s*. The characters were Tibetan, and I seized the opportunity to air my knowledge of that language—a knowledge confined to the invocation "Mani pami hum," which he at once recognised and repeated.

The Sifan ladies of this district wear a broad conical hat made of cane, with a cotton cover stretched over it. A good deal of cowrie work decorates their bosoms, which are further adorned with thin silver plaques stamped with a central boss and a number of smaller surrounding bosses. In some instances this is suspended from a cloth collar on which are sewn separate bosses resembling beads. In other

respects they dress much like the poorer classes of Chinese women, but do not, of course, distort their feet. They are generally robust and vigorous; I have even seen one or two dames, still youthful, of almost herculean, but yet graceful, physique.

I artlessly asked a Sifan if his people were friendly with the Independent Lolos. He seemed to take deep offence at the question, and walked off muttering, "They rob us, they rob us!"

On the 21st of August the road led us by a series of very steep zigzags up the western mountain side. So severe was the work, and so circuitous the way, that we only made about five miles of direct distance, putting up at Pao-an-ying, a camp-village of 120 good-natured soldier-colonists. The next day we came down a narrow valley between hills, unsheltered by a single tree, and without any habitations except a small camp or two. Here and there a patch of maize was passed, but nine-tenths of the flat grew nothing but weeds and wild flowers. The stillness of the place was most impressive. Chinese valleys are generally full of sound; but here there is no running water to attract small birds, and no branch for the cicada to perch on; the crows, so populous elsewhere, find no provender, and there is no voice of domestic animals. A few Lolo girls bringing in scant burdens of firewood, charcoal, and brown-eared rice, troop timidly along with silent barefooted tread to the distant market-place.

As we neared the frowning crags of P'u-sa-kang, on our left, the valley opened out into the plain of Yueh-hsi Ting, the chief town of this disturbed border district. The level is laid out in rice-fields, but so stony is the soil that it must be difficult for the rice-plants to find space for their roots. The road runs for nearly a mile along a high causeway of stones; the cottages are built with stones and fortified with stone walls. Fences of stones border the rice patches, and great mounds of stones are piled at short intervals all across the plain. But in spite of this lavish expenditure of material, the fields are still covered with the same unfruitful mineral, so closely distributed that at three inches from every stone lies another. We crossed perhaps five miles of this strange deposit, which decreases gradually as the city is neared. The stones range from the size of walnuts to that of pine-apples, and of course are rounded. They have clearly been brought down by intermittent floods of a mountain-stream which rushes down a wide break in the western range.

Three or four torrents of considerable size unite their waters on this plain and combine to form the Yueh-hsi river, which runs down into the wide Lolo valley mentioned above, and after a course of 70 or 80 miles enters the T'ung river under the heights of Mount Wa. One of these streams I ascended to its source, half a mile from the roadside, and found half-a-dozen cascades plunging from crannies in the foot of a hill and joining their forces to make a fullgrown river, 30 yards wide

and two feet deep. One source was a small cavern from which the fish are said to emerge with the water; I can at any rate certify that some of them are seven inches long and of excellent flavour. The head of a second affluent, which runs from under a hill three miles S.S.W. of the city, we failed to discover, having overrun the scent. We had, in fact, gone round the rear of its point of issue. It is narrower, but a good deal deeper, than the first stream, and by native account runs under the mountain in full volume from a lake on the further side.

Yueh-hsi T'ing is administered by a magistrate and a colonel with 750 men under his command. There is also a Lolo chief—T'u-ssŭ—who exercises great influence and holds jurisdiction over the subject Lolos. The city is about 700 yards square, is not thickly inhabited, and possesses no commerce, the produce of the plain being locally consumed. I was told that a few miles to the east there are mines of silver, copper, and iron, which until lately were worked by Chinese, but are now in possession of the free Lolos.

In this dale we passed many Sifan maidens, strapping and exuberant queans whom report calls hussies; this must be said without prejudice to well-conducted individuals; but in general the Sifan beauties suffer greatly by comparison with their Lolo sisters, who are obviously gentlewomen. Many a time we met the tall straight Lolo with his fringed mantle strung from his neck over his left shoulder, his wrinkled face peering curiously at the stranger, as he drives a few small but active and clean-made hill-cattle along the rough road. It is the custom for persons of our dignity to present him with a cup of native wine. The potation is a lengthy process, for if any of his compatriots are present he first passes the cup round, everyone taking two or three infinitesimal sips, and then himself, slowly and with much display of appreciative gustivity, imbibes the remainder interruptedly, holding the cup between drinks close to his beardless chin, and all the while uttering profuse rhetorical thanks to the donor. The following speech was delivered to me on such an occasion:—"Your bounty is infinite. You are heaven; I am earth. I am a civilized Lolo, not like the wild Lolos who are no better than Taiping rebels. I am a *Black-bone*,* not a *White-bone*. I serve nobody. I receive the Great Emperor's pay, and keep the peace. There are three hundred and sixty days in the year, and during that period I eat seven hundred and twenty meals, which comes to the same thing. If I have drunk too much wine, and am overtaken by the rain in that condition, I lie on the hillside in my mantle under my hat, and when I wake I am well."

It was easy to take down the words of this discourse, since the orator repeated it several times, leading me to think that it must be part of a Lolo ballad which he was translating for my benefit into Chinese. He took such exceeding pains to satisfy me that twice 360

* See p. 67.

amount, all things being considered, to 720, that it seemed well to assume an air of conviction if for no other purpose than to acquire further information. I asked him how many moons there are in 360 days. "Twelve," he replied; but when I protested that twelve moons would fall short of that complement, he not only appreciated the difficulty but took up an explanation of its adjustment. "Our teachers," he said, "add a number of days to make the year regular." "But," I asked, "how do they know what the additional number should be?" His ready and perfectly satisfying answer was, "They judge by the time of flight of the wild geese."

Such a system, though not minutely precise, is sound at bottom and must inevitably come right in the long run. But the Lolo proceeded to admit that the arrangement is inexact, and added that his teachers—he employed the word *Hsien-shêng*—possess a more perfect method, the principle of which he confessed he did not understand. His explanation amounted to this:—the limits of the seasons, which, by the way, the Lolos count as two only, summer and winter, are indicated by the rising or setting of prominent stars over peaks or gaps in the hills, viewed from certain fixed positions. If his statement be taken as referring to the place of the sun with regard to such stars, as is almost evident, it means very much what the Astronomer Royal means, when he annually exclaims, "Sun enters Capricornus; winter begins."

There is, however, no *primâ-facie* reason for denying that this isolated people may possess the rudiments or, perhaps, the relics of certain sciences in the rough, since there is no doubt that they have books. "I have seen bushels of books, but was not allowed to examine them," is the expression of a French missionary who has visited their borders. Further on I shall be able to establish the most interesting fact that they possess the art of writing, in a form peculiar, it would seem, to themselves.

What the Lolos are, whence they have come, and what is their character, are questions to which I can only make a very incompetent reply; and it must be premised that it would be very unfair to draw a definite general conclusion from a small number of scattered and embarrassed inquiries at points round their frontier. No description of them exists in any extant work, with the exception of a passage to be quoted further on and a few sentences in Captain Blakiston's book. It may fairly be said that nothing is known of them. They have been confounded with Miao-tzŭ, Man-tzŭ, Si-fan, Yeh-jên, T'u-i, and other such like loose names, indefinite Chinese expressions, mostly contemptuous, and altogether devoid of ethnological significance. "Lolo" is itself a word of insult, of unknown Chinese origin, which should not be used in their presence, although they excuse it and will even sometimes employ it in the case of ignorant strangers. In the report of Governor-General Lo Ping-chang, above quoted, they are called "I," the term

applied by Chinese to Europeans. They themselves have no objection to being styled "I-chia" (I families), but that word is not their native name. Near Ma-pien they call themselves "Lo-su"; in the neighbourhood of Lui-po T'ing their name is "No-su" or "Ngo-su" (possibly a mere variant of "Lo-su"); near Hui-li-chou the term is "Lé-su"—the syllable Lé being pronounced as in French. The subject tribes on the T'ung river, near Mount Wa, also name themselves "Ngo-su." I have found the latter people speak very disrespectfully of the Lé-su, which argues an internal distinction; but there can be no doubt that they are the same race, and speak the same language, though with minor differences of dialect.

The country occupied by the independent Lolos, an area of about 11,000 square miles, is called, in conjunction with a good deal of debateable border, "Liang-shan" or "Ta-liang-shan" (Great Ridge Mountains), a designation which does not mean any particular peak or peaks, or special range, but applies to the whole Lolo region, a district mountainous throughout, and containing a few summits which overtop the limit of perpetual snow.

The word "Black-bone" is generally used by the Chinese as a name for the independent Lolos, but in the mouth of a Lolo it seems to mean a "freeman" or "noble," in which sense it is not a whit more absurd than the "blue blood" of Europeans. The "White-bones," an inferior class, but still Lolo by birth, are, so far as I could understand, the vassals and retainers of the patricians—the people, in fact. A third class consists of Wa-tzŭ, or slaves, who are all captive Chinese. It does not appear whether the servile class is sub-divided, but, at any rate, the slaves born in Lolodom are treated with more consideration than those who have been captured in slave-hunts. Near Fu-lin I met a Chinese youth who had been brought up in servitude by the Black-bones, and had lately made his escape. He admitted without hesitation that he had been well treated and not overworked, but averred that he had always longed to escape. In P'ing-shan, on the opposite side of the Black-bone territory, I sent to the magistrate, requesting him to allow some of the hostages, who are usually detained in his residence, to come to my lodging. Two of them were sent round under an escort, and turned out to be old acquaintances, whom I had visited in their prison-house two years previously. One of their slaves, a Chinaman, attended them in durance, into which they had been inveigled on a pretence of trading, and told me that he hoped to return with them when they were released.

Near Ma-lieh a Chinaman who had escaped from captivity informed me that his condition as a slave had been comfortable enough, and that he had no complaint to make on that score; nevertheless, he preferred his liberty. His masters had tattooed upon his forehead an indelible blue cross, as a mark of ownership. The children they capture are

treated like their own children, and grow up to all intents and purposes Lolos; but adult slaves, recently caught, are liable if recalcitrant to severe penalties, being placed in the stocks by night and very poorly fed. In extreme cases they may be flogged with nettles, a punishment of which the severity may be increased to a fatal result by keeping the lacerations wetted with cold water. When the captives become amenable to discipline their lot is easy; they are tattooed with the mark of the tribe, and then treated in all respects as White-bones. The same informant told me that the Lolos make broad roads, and live in fine stone houses.

It might be supposed that the well-conditioned and generally contented slaves are half-breeds by Lolo fathers and Chinese slave-mothers, but such is not the case. Even the T'u-ssŭ—Lolos who hold hereditary rule over tribes subject to Chinese jurisdiction, and who speak and write Chinese and wear the Chinese official dress—never marry any but a tribeswoman. Many Chinese girls are, of course, carried into slavery, but only for the purpose of providing wives for Chinese bondmen.

When a marriage is arranged between a Black-bone and a damsel of his own degree, the bridegroom invites the bride with her relations to a banquet, which is spread on the hillside. After the festival the bride goes home with her friends, and it is not until after the third wedding breakfast that the happy pair are united. Presents are interchanged, of which it seems that the family of the bride obtains by far the larger share. The following account of the nuptial ceremony was given me by a party of Lolos near Mount Wa, and may be implicitly relied upon. The betrothal is ratified by a present, from the husband's family, of three vessels of wine and a pig. On the wedding morning the parents of the bride assemble their friends, and the ceremony is opened by the bridesmaids with a melancholy song:—"In spite of all the affection and care your fond parents have lavished upon you since the day you were born, you must now desert them; never again will you sit beside them at work or at meals. You will not be nigh to support them when they grow old, nor to tend them when they fall sick. You must leave them, and go away to the house of a stranger." Whereto the bride responds, also in song, broken with bitter weeping:—"Leave them I must, but not by my desire or fault. They must bear with my absence; my brothers and sisters will support them. I go to my husband, and my duty will be to help his parents, not, alas! my own. But if any trouble befall my dear father and mother, I shall pine to death; I am sure I shall. Seldom can I visit them; but when they are sick let them send for me, and I will come, I will come!"

The antiphonal character of this chorus led me to inquire if the chant is cut and dried. But A-niu (uncle), a rather cynical old Lolo, whose right eyebrow was obscured by a scar gained in the chase of the

wild cattle, told me that it is for the most part extemporised, and that he thought the girls could go on for ever if they liked. Other passages of this touching marriage service lament the leave-taking, and give advice to the bride's sisters to be submissive, kind, and gentle. In the mean time the bride is being arrayed in rich garments and gawds of precious metal, and when she is fully decked the final strophe of the bridal wail begins, a lyric dread that the groom and his parents will behave harshly to the parting sister. A crisis of tearfulness ensues, when suddenly the brothers, cousins, and friends of the husband burst upon the scene with tumult and loud shouting, seize the almost distraught maid, place her pick-a-back on the shoulders of the best-man, carry her hurriedly and violently away, and mount her on a horse which gallops off to her new home. The violence is rather more than simulated, for although the male friends of the bride only repel the attacking party with showers of flour and wood-ashes, the attendant virgins are armed with sticks, which they have the fullest liberty to wield. "Probably they do not strike very hard," I remarked; but A-niu replied, "Oh, oh! the sticks are thorn-branches,* and the girls lay about them with all their might."

The husband's family furnish the young couple with horses, cattle, and sheep; the parents of the bride supply clothes, ornaments, and corn—chiefly maize and buckwheat.

Among some of the tribes a ceremony is said to obtain which seems too grotesque to be true; perhaps it is only a game. The bride is perched by her parents on an upper branch of a large tree, while the elder ladies of the family cluster on the lower branches. The ardent bridegroom clambers up the trunk, assailed by blows and pushes from the dowagers, and it is not until he has succeeded in touching the foot of his sweetheart that he is suffered to claim her as his housewife.

When a boy is born he is washed in cold water, and his forehead baptised with cowdung to render him robust and fearless. But the birth of a girl is generally regarded with more satisfaction. Indeed, the women hold a very respected position, and may even succeed to the sovereignty of a tribe. The best guarantee a stranger can find who desires to enter the Lolo hills is a female guide, who before setting out puts on an extra petticoat; by Lolo law a traveller thus personally conducted is sacred. If any serious molestation is threatened, the woman, after giving due warning and formally calling upon all present to witness the act, takes off a petticoat and spreads it solemnly on the ground. There the token remains, with its coloured flounces fluttering in the breeze or reeking in the rain, until the outrage has been fully

* The Lolo thorn, which lines every road side above P'ing-shan, is armed with rows of blood-red points half an inch or more in length, all turned the wrong way, like shark's teeth. In some way which I could not understand it may be used for food.

condoned. The neighbouring chiefs are bound to punish the offenders, and until justice has been done the petticoat is as inviolable as an ambassador's flag. I am also informed that the women are allowed to take part in battles, with the tacit convention that so long as they do not use pointed or cutting weapons they shall not be attacked by male warriors.

Although traders pass freely through the whole country, it is clear that the various autonomous tribes are not very amicably united. A captive among the P'ing-shan hostages told me that his chief, by name Kata, had lately crossed from Lui-po to Ning-yuan; and being asked how many days the journey had occupied, he replied, "Kata had to avoid many enemies (*yuan-chia*), and therefore took forty-four days." Now the direct distance from point to point is only about 80 miles. The same informant, who remembered with gratitude my visit to his prison-house during the time of Mr. Grosvenor's mission, cried out, on being told that I had lately passed the borders of his tribe near O-pien T'ing, "Why did you not let us know? Although we are prisoners, we could have sent word to our countrymen, and I warrant they would not have let you go by without a welcome." "But would they have taken me through their territory?" "Certainly they would; but they could not pass you into the country of their enemies."

It is remarkable that Buddhism does not count a single convert among the Lolos. Their cult, whatever it may be, is fostered by a class of medicine-men, who are held in great reverence and monopolise the art of writing. It is very difficult to elicit a reply to questions regarding their religion, but the following traits, gathered from Chinese who had escaped from bondage, are credible. The deities are consulted by tossing sticks in the air, and examining the positions into which they fall; or by burning mutton-bones, the marks produced by the calcination indicating the fortune, good or evil, which has been decreed. The feathers of a fowl, inserted into a split bamboo and thrown on to the roof of a house, avert evil influences. Sheep, cattle, or horses are slaughtered when a disaster threatens, on a kind of insurance principle —"I am willing to sacrifice this, in the hope of preserving that"—the theory, perhaps, of all sacrifice. Trial by ordeal is common. An article of value having been stolen and the thief remaining undiscovered, the people of the place are assembled by the medicine-men, and a handful of raw rice is served out to every one. A solemn period of mastication follows, after which the resultant is spat out, and a stain of blood on the chewed mouthful infallibly betrays the culprit. It is affirmed that the gums of the guilty bleed, and that a confession always ensues.

The order of succession to property and chieftainship is curious; the youngest son generally succeeds, and after him the eldest.

The following stray notes were collected from the P'ing-shan captives. They compare the world to an open hand: the thumb,

stretched out far from the digits, represents foreigners, the forefinger themselves; the middle finger indicates the Mahommedans, the third the Chinese, and the little finger the Tartars. (Perhaps the thumb was, for the occasion, transferred from Tibet to Europe.) The great Emperor of China is imagined to sit enthroned in the middle of the palm. They worship three deities—Lui-wo, A-pu-ko, and Shua-shê-po, of whom Lui-wo is the greatest; all three live on Mount O. Old people say that the Liang-shan tribes are a branch of the *La-ka* (?) family, and came originally from the west. The first three numerals were formely *tu, fan, yi*, but have been changed. They procure fine woollen cloth from K'erh-ka-ta, which is not far from Chien-ch'ang Fu (Ning-yuan). Tibet is two months' journey from their tribe; and beyond Tibet lies a foreign country from which goods reach them. They have not been to that country. In 1849 a foreigner dressed like myself, but with long beard and black hair, paid them a visit at a place which is five days' journey from Ma-pien, and gave them 20,000 cash—about sixty-two shillings—for a cow and a sheep. They would like to know what has become of him, as he was very friendly. (I have no idea what this can mean; the French missionaries without exception wear Chinese dress.) Some of their people have red or yellow hair. A chief marries three wives, a sub-chief two, and the common people one. They cultivate wheat, barley, and millet, and make wine of these, but grow very little rice. They use knives and forks, and eat beef, mutton, and pork, but not horse or dog-flesh. They make their own swords, three and a half to five spans long, with square heads, and have bows which it takes three men to draw,* but no muskets. Their women wear pleated petticoats, ornaments of silver and gold, and embroidered shoes. Hearing that foreigners possess instruments which indicate the time of day, they would be glad to obtain a specimen.

There is much in the free-hearted manner of these Lolos to attract the traveller, and more in the interest which attaches to so original or aboriginal, a people. Possessed as they seemed to be with half an idea that I was akin to their race, they were everywhere curious to see their far-away tribesman. A European could doubtless stroll over the length and breadth of their meads and mountains in complete security; but he must be furnished with references; an introduction *en règle* is indispensable. They appear to keep a wary watch along their border, and the character of a visitor is soon appreciated at its true value. Should he belong to the category of honest folk he will find no difficulty in crossing the frontier, unless it be from Chinese officials.

Whatever may be the difference between the subdivisions of Lé-su and Ngo-su, it is impossible to deny that they belong to the same family. Physique, manners, and language, all correspond. It is most noteworthy

* See this from a Chinese drawing in 'Marco Polo,' Bk. ii. ch. xlix.—[H. Y.]

that the term *Lé-su*—or some variant of it—is nationally used by several tribes in this part of Indo-China, widely separate from one another both in the geographical and other senses. I find in the work of Abbé Desgodins an account of a people whom he names *Lissou*, inhabiting the region immediately south of Tibet, and to whom he attributes a very independent character. He adds that their language differs wholly from those of the numerous tribes by which they are bordered. Again, in the valuable journal kept by Dr. Anderson of his experiences with the Sladen Mission, mention is made of a people whose tribal name he writes *Lee-saw*, and whom he proposes to identify with the "*Lei-su*" encountered on the Tibetan border by Mr. Cooper. The Doctor's description of his "Lee-saws" as "a small hill people with fair, round, flat faces, high cheek-bones, and some little obliquity of the eye," differs *toto cœlo* from the tall, oval-faced, Aryan-like race I saw on the Chien-ch'ang border. Nor is the resemblance between Mr. Cooper's friends and the Lolos any more striking.

But Dr. Anderson finds great similarity between the language of his Lee-saws and the Burmese. The obvious experiment is therefore to compare the Lee-saw numerals, as recorded in his work, with those of the Lolos, as below:—

	Lolos (near Wa-shan)	Lolos (near Ma-pien)	Lee-saws (of Dr. Anderson).
1	Ts'ụ	Tchih	Ti
2	Ni	Ni	Hnuit
3	Su	Su	Sa
4	Erh	Li	Li
5	Ngụ	Ngụ	Ngaw
6	Fo	K'u	Chaw
7	Shih	Shih	Tshe
8	Shie	Hei	Hay
9	Gu	Gu	Koo
10	Tch'ie (or Ts'e)	Tch'e	Tsi
11	Tch'i-tsụ	Tch'i-ti	

By which it appears that they are nearly identical. Therefore—but it would be rash to draw conclusions; it is only safe to assert that future explorers will do well to collect further materials.

The speech of the Independent Lolos is harsh, abounding in gutturals and strange vibrating consonants. The Welsh aspirated *l* frequently occurs, as in *hlopọ* (moon), but it is not so easy to aspirate an *n* as in *hnabé* (nose). There is a labial sound which might be written *bwrbwru*, pronounced as if the speaker were shivering with cold, and which is not difficult to imitate; but when the same process of shuddering has to be applied to a lingual, as in the word for *iron*, which I have despairingly written *shu-thdhru*, an English tongue is dumbfoundered. Happily for strangers these odd vocables are freely modified into much simpler sounds without danger of misapprehension.

The following short vocabulary was collected among a small tribe of subject Lolos living on the left bank of the T'ung river, from whose pronunciation much of the primitive uncouthness has disappeared. A parallel column gives a corresponding vocabulary of the language spoken by the Sifans of Tsu-ta-ti. It will be observed that both peoples use Chinese terms for certain natural products; but it should not on that account be hastily concluded that such articles are not indigenous. The Sifans, for example, employ the Chinese name for rhubarb, although that salutary plant is almost exclusively a Sifan export.

	Sifan (properly Mekia) of Tsŭ-ta-ti.	Lolo of Left Bank of T'ung River.
1	Tụ	Ts'ụ
2	Nụ	Ni
3	Si	Su, or Soa
4	Jro	Erh
5	Ngei	Ngụ
6	Tch'u	Fo
7	Shụn	Shih
8	Jih	Shie
9	Ngo	Gu
10	Tch'i-tch'i	Tch'ie, or Ts'e
11	Th'sụ-tụ	Tch'i-ts'ụ
12	Th'sụ-nụ	Tch'i-ni
16	Th'sụ-tch'ụ	Tch'ie-fo
20	Nụ-tsụ	Ni-ts'e
21	Nụts-tụ, or Nụts-la-tụ	Ni-ts'e-ts'ụ
30	Si-tsụ	Soa-ts'e
32	Si-tsụ-nụ	Soa-ts'e-ni
40	Jro-tsụ	Erh-ts'e
43	Jro-tsụ-si	Erh-ts'e-su
100	Ta-jia	Ts'ụ-ha
104	Ta-jia la jro	Ts'ụ-ha ni erh
109		Ts'ụ-ha ni gu
130	Ta-jia si-tsụ, or Ta-jia la si-tsụ	Ts'ụ-ha-soa-ts'e
197	Ta-jia la ngo-tsụ-shụn	Ts'ụ-ha-gu-ts'e-shih
800	Jih-jia	Shie-ha
1000	Tụ-to	Ts'ụ-tpro
Three horses	Mo si-bu	M k'o soa-ma
I	A	Ngo, or Nga
Thou	Nụ	Ni
He	T'ụ	Ts'ụ, or Ha-diu
We	Ao	
You	Nu	
They	T'ou	
Mine	Ei	Ngo-be
Thine	Ni	Ni-be
His	T'i	Ha-diu-be
Ours	Ao-wo	Ei-wo
Yours	Nu-wo	Ni-wo
Theirs	T'ou-wo	T'i-wo
This horse	Mo t'ụ-bu	M ts'ụ-ma

	Sifan (properly Mexia) of Tzŭ-ta-ti.	Lolo of Left Bank of T'ung River.
That horse	Mo p'ai-t'ụ-bu	M ha-di-ma
Here	Kwan-p'ụn	Ts'u-ku
There	Wan-p'ụn	Ha-du-ku
What	Ha-ma	K'e-tch'e-ma
Who (what man)	Ha-ma ssụ	K'e-ts'u-ma
Where (what place)	Ha-ma me-li	
When (what time)	Ha-ma tụ-kụ	K'a-t'i
Whither are you going?	Ha-da i-gụ	K'a-yi
Whence do you come?	Ha-da wa-la	K'a la
Come here!	T'ụ-k'ụ-la	Ts'u-ku la
Go away!	Nei-i	Ta-sho
Man		Ts'u
Place		Mi-di
One year	Tụ tu-tch'e	Ts'ụ koa
One month	Tụ ha	Ts'ụ bu la
One day	Tụ niu	Ts'ụ nien
Yesterday	Ya-niu	A-ni-di
To-morrow	So-niu	Shih-ta-di
To-day		I-ni-di
Last year	Ya-hei	A-hei-o
Next year	So-hei	Nie-ho
Morning	Dja-ma-tch'e	Tchih-gu dji-ti-ko
Evening	Mụn-k'we	Dja-gu dji-ti-ko
Noon	Mjo-dzụ-she	M-erh-ko
Night	K'we	M-k'e-ko
Spring	Mụn-dsie	Ts'ụ-la
Summer	Mụng-a	
Autumn	Mụ-to	Mu-ts'ụ
Winter	Mụ-tsụ	
Sun	Ni-ma	He-bu-shio
Moon	Ha-pụ	La-ba
Star	Tchih	Mu-tchio
Cloud	Djie	Mu-nie
Rain	Ngwa-la	Ma-ha
Snow	Yi	Wo
Wind	Mụr	Mụr
North	Tchian-tch'o	
South	Llo-tch'o	
East	Sha-tch'o	Bu-du
West	No-tch'o	Bu-djie
Sky	Mụ	Mu-mie
Fire	Mie-p'u	Mu-to
Water	Djo, or djui	I-gu
Hill	Mbie	Buia
River	Yin-djro-ma	Nui
Stone	Lo-k'wa	Lo-mo
Earth	Za-pi	Mi-di
Wood	Sie	Ssụ-lo
Gold	*N^{2}	Shih
Silver	Mwe	Tch'uo

* The small numerals indicate the "Tones." See p. 78.—[W. G.]

	Sifan (properly Mekia) of Tsŭ-ta-tï.	Lolo of Left Bank of T'ung River.
Iron	She	Shu-ṭhdhru
Copper	Nuo[2]	
Lead	Hie	
Tin	Hie	
Bone	Ro-ku	Shih-wo
Grass	Ndzu[2]	Jih-pa
Rice	Tch'e	Dze-tch'uo
Raw rice	N-tch'e	
Maize	Yi-mi (Chinese?)	Yi-mi-dzu (Chinese?)
Tobacco	Pi-tch'a	Ta-ba (Mapien dialect)
Barley	Mu[2]-dza[2]	Zo
Wheat		Sha
Rhubarb	Names borrowed from Chinese	(Chinese)
Silk		(Chinese)
Opium		(Chinese)
Mulberry		Bbu-dza
Potato		(Chinese)
Cotton		(Chinese)
Hemp		(Chinese)
Nettle		Du-p'u
Turnip		(Chinese)
Carrot		(Chinese)
Lettuce		
Onion		
Tea	Dja-tcha	La
Willow	Mbo-u	Mo-shoa
Bamboo	He-ka	Ma-tchie
Buried pine	Tchu-si	
Wine	Wo	Djih
Cow	Mwe	Lu, or Lugh
Dog	Tch'o	K'e
Goat	Tch'i	Tch'i
Pig	Rgo	Wo[1]-pa (male), Wo[1]-ma (female)
Fowl	Rga[1]	Wo[4]
Duck	Nta-tsu	E-pu (male), E-ma (female)
Sheep	Yo	Yo
Yak	Rga[1]	
Hare	Mi-dzu	T'a-la
Rat	Gu	He
Snake	Bur	Vu
Monkey	Mi	A-nuo
Tiger	La	La
Dragon	Ri-dji	Luo
Bird		A-tsu
Fish		Hai-yi
Hawk		Tchuo
Sparrow		A-tchao
Pigeon		Si-atsu
Musk deer	Lie	Lu-pu (male), Lu-ma (female)
Wolf	Ndzu[2]	Viu
Fox		Mie-guo
Leopard	(Same as Wolf)	Zu
Bear	Rge	Wo (in a deep tone)

	Sifan (properly Mexia) of Tzŭ-ta-ti.	Lolo of Left Bank of T'ung River.
Father	A-ba	A-ta'
Mother	A-ma	A-ma
Elder brother	A-dja	A-mu
Younger brother	N-a	E-ni
Sister	Hei-ma	A-ye
Husband	Si-p'a	Bui-dji
Wife	Ma-mu	Si-ma
Son	Yi-za	Zi-e
Daughter	Zi-e	A-mi-zie
Father's elder brother	A-ba-k'wa	A-bi
Father's younger brother	Bei-ka	A-niu
Father's elder sister	A-ma-k'wa	A-bu
Father's younger sister	N-dza-ma	Bo-ka
Grandfather	A-pu	A-p'u
Grandmother	A-wa	A-wa
Grandson	Lụ-tchụ	Erh-yi
Granddaughter	Nza-lụ-tchụ	Erh-ma
Nephew, or niece	Ndjih-yi	
Head	We-li	A-tch'e
Hair	Tchi-wo	Djih-p'o
Eyes	Dụ-ku	Ni-ssụ
Nose	Shụm-bu-ka	Ne-bi
Mouth	Shụm-p'a	K'a-p'ien
Ears	Ni-p'e-tcho	Na-bu
Throat	Tao-ka	Li-wu
Lips	Shụm-p'a-ndjro-pi	Mu-p'u
Teeth	Fu-ma (incisors)	Djih-ma
„	Fu-k'wa (molars)	
Tongue	Shih-pụ-tcho	Shie
Chin	Mo-ho-ge	Ma-dji-tch'i-li-ma
Arm	Lụ-tsa	Lu-bu
Hand	Lụ-pa-ka	Lo
Finger	Lụ-shih-ka	Lo-tchi-ze
Finger-nail	Lụ-dzụ	Lo-si
Thumb	Lụ-ma	Lo-ma
Forefinger	Lụ-tch'e	
Middle finger	Lụ-shụn-dzụ-mo	
Third „	Lụ-dji	
Little „	Lụ-ntch'u-pụr	
Body	Kwo-pa	Dji-shi-lo
Breast	Ro-k'u	Di-gwa-ma
Back	Ga-ma	Ko-pu
Heart	Shụm-bu	He-ma
Belly	Yi-p'a	Ha-ma
Leg	Bu-bu	Bbu-ss-ma
Foot	Erh-p'ụ	Tch'i-shi
Sole	Erh-pu-tchuo	
Toe	Erh-shih-wo	Shi-ma (great toe) Shi-tchi-ze (other toes)
Toe-nail	Erh-dzụ	Shi-si
Heel	Erh-gu-bu	K'a-twa-ma
Skin	Rjo-shụ-ndjro-pi	Dji-dji
Flesh	Shih	Shi-ni

	Sifan (properly Menia) of Tzŭ-ta-ti.	Lolo of Left Bank of T'ung River.
Plough	Du-ge	Ssu-gu
Hoe	Dzu-pu-tchuo	Tzu-ma
Axe	Wo-tsa	Wu-ma
Saw	Sa-di	Sho
Bow	Si-le-ka	He-ma
Quiver	..	He-bu
Sword	Mbu-tcha	Dji-mi
Spear	Ndji-ka	
Gun	Ni-tch'u	Tch'u
Flint	Tcha-ma-lo-k'wa	Mie-go-lo-mo (tinder-stone)
Drum	Kun-djie	Ko-dzu (Chinese)
Arrow	Me-ka	
Flute	Shih-he	Do-ge
Boat	Lo-ge	Lo
Rope	Be-ka	Djia-pa
Paper	Sho	T'ao-wo
Book	Jun-te	T'ao-shu-pe
Basket	..	T'i-tu-dzu
Oil	Jih-yi	
Salt	T'su	
Blood	Shuo	Ssu
Clothes	Ga-ma	Tch'ü-ti
Coat	Ya-she-tch'a	K'a-dzu
Trowsers	Za-tsa	Wo-ye
Hat	Mbo[2]	Tcha-mo
Shoes	Zu	Shih-nie
Black	Da-na	A-no-so
White	Du-lu	A-tchü-so
Red	De-nie	A-ni-so
Green	La-mi	A-lu-so
Blue	Da-ba	A-wu-so
Yellow	Du-sho	A-shih-so
Good	Ya-lie, or Yan-du	Bei-so, or Bui-so
Bad	Ma-lie, or Man-du	A-bei-so
High	Yam-bo	A-mo-so
Low	Ya-nie	E-hi-so
Long	Ya-she	A-shie-so
Short	Ya-djo	E-nu-so
Thick	Ya-du	A-tmbu-sho
Thin	Ya-bu	E-bu-sho
Near	Mbwe-sha	(Same as "short")
Far	Ya-rgo-she	(Same as "long")
Fast	Yan-tch'e	Kwo-tch'a
Slow	Di-wa	A-li-a-li
Old	K'wa-k'wa	Mu[3]
Young	P'u-za	So-lie
Big	Ya-k'wa	I-su
Little	Yie	Dji-su
Strong	Sho-mo-ya-djo	Wo-ni-ko
Weak	Da-ma-shia-tu	P'a-ko
Handsome	Yan-tch'uo	Sü-erh-te-ko
Ugly	Ma-sha-nga	Shih-la-te

	Sifan (properly Menia) of Tsŭ-ta-ti.	Lolo of Left Bank of T'ung River.
Clever	Yan-tch'e-tụ	O-dji
Stupid	Man-tch'e	Sụm-sụ-la-djo
Awkward	Ka-tụ	
Rich	Ya-bo	Su-ga-so
Poor	Ma-bo	So-sha
Dead	T'o-shwa	Ssụ-wo
Alive	Dụn-so	Dju-so
Sifan (themselves)	Lo-ssụ	O-dzuo
Tibetans	Ndo-a	La-ma
Chinese	Ndzi	Ha-ga
Lolos	Na-p'a	Ngo-so (i. e. themselves)
Mup'ing Sifan		Tu-puo
Come	La-mu	La
Go	Yi	Yie
Eat (as food)	Ngụ-dzụ	Do
Eat (as tobacco)	Ngụ-tche	
Drink	Ngụn-tche	Shi-do
Sleep	K'o-me	E-djo
Beat	Na-ka	Dduo
Kill	K'o-tchuo	Sie
This man is good	T'ụ-ssụ-bu Yan-dụ	T'su ts'ụ-ma bui-ko
This man is better than that	T'ụ-ssụ-bu P'ai-bu Tch'u Yan-dụ	Ts'u ts'ụ-ma ha-di-ma kwa-dzụ
These two men are very bad	T'ụ-ssụ-nụ-bu Ya Man-dụ	Ts'u ts'ụ-ni-ma a-bei
That man is bad		Ts'u ha-di-ma a-bei
This horse is faster than that	T'ụ-mo P'ai-mo Tch'u Yan-tch'e	M ts'ụ-ma ha-di-ma kwa-dzụ dzụ-shuo
To drink tea		La shi-do
To smoke tobacco	Yi-tch'a ngụ-tche	
I want to sleep	A k'o-me	Nga e-djo-go
I will come to-morrow	A so-niu la	Nga shih-ta-di la
He beat me yesterday	T'ụ ya-niu a-wa na-ka	Ts'ụ a-ni-di nga dduo
Don't beat me	A-wa na-t'a-ka	Nga t'a-dduo
Don't kill him	T'ụ-wa k'o-t'a-tchuo	

In writing the above sounds Sir T. Wade's method has been followed, with the necessary extensions. The vowel *e*, however, is to be pronounced like a French accented *e* (*bébé*), and the vowel *u* with a dot below (ụ), like *u* in the English word "but." *Rg*, in Sifan words, is a guttural *r* with a *grasseyement*.

Both Lolo and Sifan have tones. In a few cases these have been indicated according to the Pekinese scale.

All the way from the T'ung there is no break in the western hills, under the brow of which the road for the most part runs; but near Yueh-hsi it becomes evident that these hills are merely the offshoots of the Cheh-to range, the boundary wall of Tibet. Northwest, or thereabouts, of Yueh-hsi rises a snowy peak which may be regarded as a corner of the Tibetan plateau, since south of it there are no conspicuous

mountains in the line of the range. I only obtained a very fleeting view of it, and even then the summit was hidden by a mass of cumulus; but as the snow-line lay far down the mountain at the hottest time of the year the height of its culminating peak* cannot be much less that 18,000 feet.

The valley of Yueh-hsi opens southward into the territory of the Black-bones, touching their confines at some 15 miles from the city. Our object being to follow the highroad, we edged round the spurs of a high confused mountain-mass, full of gullies and chasms, and turning up a narrowing glen reached the fortified outpost of Hsiao-shao ("little guard"). As we left the main valley, we left cultivation and cottages, and it is evident that caravans hurry through the glen, for at a temporary booth in which we breakfasted we could only procure rice enough for half our party. Hsiao-shao lies at the foot of the Little Hsiang-ling Pass, the most elevated point of the Chien-ch'ang road. The col has an elevation above sea-level of 9800 feet, and though a few hundred feet higher than its "Great" namesake, is easier of ascent. The hillsides are broken up into the precipitous wooded bluffs which Chinese artists delight to portray. Black-bone incursions seldom cross the range, the strong walled camp of Teng-hsiang, 2100 feet below the summit, effectually closing all access down the gorge to the rice-plain of Mien-shan. We were escorted by squads of well-clothed soldier-colonists, and by a pair of trumpeters, whose blasts echoed impressively down the ravines, and every little sentinel blockhouse returned a salute of three gingalls, to the great discomfort of my mule, which at each discharge seemed to apprehend a Lolo foray and threatened to upset me, loosely mounted on a packsaddle, into the profuse nettle-beds which border the track. On the 25th we continued the descent to Mien-shan, a flourishing little town at the junction of two valleys which yield copper and iron (manganese ore). We met several loads of the latter coming in from the mines.

A small river here runs out of Lololand through an open vale and joins its waters with the torrent which had accompanied us from the top of the pass. We followed the united stream through the narrowest conceivable gorge by a path which in one place is excavated, parapet and all, in the face of the precipice, high above the foaming waters, and is closed moreover by solid gates—the pass, in fact, which Shih Ta-k'ai found occupied and did not attempt to carry.† A little further on, the tortuous ravine opens, suddenly, into the main valley of Chien-ch'ang at the important town of Lu-ku (or Lo-ku), a customs and Likin station for the collection of dues on cotton cloth, Yunnan opium, and many other

* The peak bore nearly due west from my station, so that its latitude, as laid down on the chart, is fairly correct; but as I never caught sight of it again, its longitude is only estimated.

† See p. 57.

articles—it would be nearly safe to say *all* other articles. The trade in foreign cottons is insignificant, the native fabric imported viâ Ya-chou being far more suitable to local demand. The principal Lu-ku firm annually distributes 5000 bales of Eastern Chinese cloth, each bale containing forty-eight pieces 30 feet long. The bales cost about Tls. 14 in Hankow, and by the time they have reached Lu-ku they have paid two taels for duty and Likin, and about the same amount for carriage. The average sale at Lu-ku is Tls. 18 per bale, by which it appears that the profit on an outlay of some 20,000*l.* is exactly *nil*. But any one acquainted with the conduct of native trade will easily guess the solution of the mystery, which is that the exchange of silver and the difference of weights and measures is greatly in favour of Lu-ku. These differentiations give the traders a profit of five or six per cent; but most of the import is exchanged for Yünnan opium, a staple which yields a far more gratifying remuneration.

Chien-ch'ang proper, which we have now reached, is a valley, or perhaps plain, lying due north and south, a degree of latitude in length, and, on the average, about three miles broad. The Anning river, an impetuous, shallow, and unnavigable stream, runs down its whole length in a sandy and shingly bed. The mean level of the valley is nearly 5000 feet above sea, and in the course of 50 miles it falls about 900 feet. The steep and high mountains which form its eastern wall, breached only at Ning-yuan Fu, are the home of the Black-bones, while its western boundary is a system of lower, less abrupt, and less wooded ranges, inhabited partly by Chinese and partly by a great variety of indigenous tribes (Sifan, or Mantzŭ), subdivisions of the Tibetan race. Besides being the habitat of the famous wax-insect, the valley and its lateral ravines are reputed to be exceptionally fertile, producing all crops from buckwheat to rice. Its fruits also are unusually large and delicate. Soon after passing Lu-ku we saw crops of a gorgeous purple plant, a cereal called locally "Mantzŭ Hsŭ-mi"; sunflowers are very extensively cultivated, and it is curious to see their golden faces, eight or ten inches broad, all turning persistently to the east. The cactus is common from Lu-ku downwards, but is not so large or abundant as on the Upper Yangtzŭ above P'ing-shan, where it is used for fencing fields, and even villages.

The discreet and observant gentleman who came this way from Venice six hundred and odd years ago, has recorded that after travelling several days over high mountains he entered a level country, called "Caindu," in which there are many towns and villages. There can be no doubt that by Caindu he means this valley. Colonel Yule, whose admirable edition I can only quote from memory, sees in the word Caindu a variation of "Chien-ch'ang," and supposes the syllable "du" to be the same as the termination "du," "do," or "tu," so frequent in Tibetan names. In such names, however, "do" never means a district,

but always a confluence, or a town near a confluence, as might almost be guessed from a map of Tibet. Ta-chien-lu is a case in point, and serves at the same time to illustrate the formation of a myth. As written in Chinese, the term means "arrow-forge," and successive travellers relate the various explanations by which the Chinese attempt to account for the expression. Abbé Huc gives one version; Captain Gill—small blame to him—another; and my own notes contained a very romantic story on the subject. But I have since learnt that "Ta-chien-lu" is merely the Chinese transliteration of the native name "Tar-tsen-do," which means "confluence of the Tar and the Tsen," the two streams which unite at that place.*

Unsatisfied with Colonel Yule's identification, I cast about for another, and thought for a while that a clue had been found in the term "Chien-t'ou" (sharp-head) applied to certain Lolo tribes. But the idea had to be abandoned, since Marco Polo's anecdote about the "caitiff" and the loose manners of his family could never have referred to the Lolos, who are admitted even by their Chinese enemies to possess a very strict code indeed of domestic regulations. The Lolos being eliminated, the Sifans remained; and before we had been many days in their neighbourhood, stories were told us of their conduct which a polite pen refuses to record. It is enough to say that Marco's account falls rather short of the truth, and most obviously applies to the Sifan. A succinct expression of Chinese opinion is contained in the border saying "Chên-chieh Lolo; kou Sifan," where *chên-chieh* means lady-like reserve, and *kou* broadly hints its antithesis. It has already been remarked that *Sifan*, convertible with *Mantzŭ*, is a loose Chinese expression of no ethnological value, meaning nothing more than western barbarians; but in a more restricted sense it is used to designate a people (or peoples) which inhabits the valley of the Yalung and the upper T'ung, with contiguous valleys and ranges, from about the twenty-seventh parallel to the borders of Koko-nor. This people is subdivided into eighteen tribes, the names of which according to Tibetan pronunciation are as follows:—

1. Djia-la.	7. So-mung.	13. Tchra-tin.
2. Djum-ba.	8. Djiu-tsé.	14. Ma-zu, or Ma-zé.
3. Djia-k'a.	9. Zur-ga.	15. K'ung-sar.
4. Wo-jé, or Go-jé.	10. Tchro-shiop.	16. Pé-ré.
5. Rap-ten and Tsen-la.	11. Gé-shie.	17. Tchran-go.
6. Tam-ba.	12. Pa-ung.	18. Djé-gu.

Djia-la is the native name of the district ruled by the King of Ta-chien-lu, whose style is *Djia-la Djie-po* (King of Djia-la). His

* Horace Della Penna, in his account of Tibetan countries, makes allusion to the state, or city, of Tar-chen-ton, which supplies the whole of Tibet with tea, and lies on the confines of China. It is evident enough that Tar-chen-ton is Tar-tsen-do, alias Ta-chien-lu, the great entrepôt of the tea-trade between Ssŭ-ch'uan and Tibet.

What is said in the text regarding the etymology of Ta-chien-lu, &c., corroborates the suggestions made in notes to Captain Gill's work. See "Introductory Essay," p. [88], and vol. ii. p. 77.—[H. Y.]

Chinese title is *Ming-chêng-ssŭ*, which, if it is to be translated, means "Bright-ruling official." *Djum-ba* is better known to foreigners by its Chinese name of Mu-p'ing. *So-mung*, near Sung-p'an T'ing, may perhaps be identified with Captain Gill's *Su-mu*. Tibetan, or a dialect of Tibetan, is the language of Djia-la and of the last five in the list. Djum-ba possesses a language of its own, and in the rest another different language is spoken. In *Gé-shie*, however, Tibetan is generally understood. The Tibetan alphabet is employed in all.

The tribes numbered from 2 to 13 (Djum-ba to Tchra-tin) extend northwards from Ta-chien-lu to Koko-nor; but Djia-la and the last five, Tibetan-speaking tribes, form a separate division under the general name of *Ménia*, and inhabit, roughly, the valley of the Yalung river. Menia appears in some European maps of the region under the form "Miniak," doubtless the same word; in pronouncing Tibetan many written consonants are suppressed;* the "Bos Grunniens," for instance, otherwise the Yak, is called "Ya" by natives. It will also be found that the Yalung is named on some maps the Minia-chu—Minia river. Again, the native Chinese map applies the name of *Me-li-na-ka* to the territory west of Chien-ch'ang between the Yalung and the Wuliang; but it is possible that this term refers to the country of *Meli*, a distinct region.

Although the main valley of Chien-ch'ang is now principally inhabited by Chinese, yet the Sifan or Menia people are frequently met with, and most of the villages possess two names, one Chinese and the other indigenous. Probably in Marco Polo's time a Menia population predominated, and the valley was regarded as part of Menia. If Marco had heard that name he would certainly have recorded it; but it is not one which is likely to reach the ears of a stranger. The Chinese people and officials never employ it, but use in its stead an alternative name, *Chan-tu* or *Chan-tui*, of precisely the same application, which I make bold to offer as the original of Marco's Caindu, or preferably Ciandu. (See note on the Sifan tribes.)

It was a pleasant change, after the rugged mountain passes, to travel along the broad level vale to Li-chou, a small sub-magisterial city, with a new wall environed by flourishing farm-houses and well-conditioned temples—a city where few are very rich and none absolutely poor. We saw many people clothed in rags, of which they were not ashamed, explaining that they wear their old suits in summer, but possess better garments for the cold weather. Rice and maize are so abundant and so little exported that no one is enriched and no one starves. There is a traffic in goat-skins from the hills, in wax-insects, and of course in

* The name of the town of Darjeeling, well known to Tibetans, is a good example. In Eastern Tibet it is pronounced *Do-gie-lin*, but is written *Rdo-rgie-glin*, meaning "Diamond Country." Western Tibetans, on the other hand, read *T'u-gie-lin*, but write *Stod-rgias-glin*, which means "High Broad Country."

opium, but the whole export amounts to very little. The carriage business, for which Li-chou is the chief station on the highway between Hui-li-chou and Yachou, affords employment to a great part of the inhabitants. Seven or eight miles further on we came to Ning-yuan Fu, the capital of Chien-ch'ang, built on the northern slope of a lateral valley which has been the scene of two calamitous visitations. During the early part of the Ming dynasty the present lake, it is said, had no existence, but was a dry hollow, in which the city lay surrounded by forest. A sudden earthquake, says tradition, shook the place to fragments, and a rush of water from underground converted its site into a lake; after which cataclysm, the forest was cleared and a new city built in the present position. However much precision the tale may lack in date and detail, it is rendered credible by what occurred in the autumn of 1850 (30th year of Tao-kuang, 8th moon, 7th day), when an earthquake threw down two-thirds of the buildings, and even those which remained standing were for the most part wedged up and buttressed by the surrounding débris. The crisis was preceded by a month's continuous rain. Soon after the cessation of the culminating shocks the ruins of the city took fire. It is asserted that only one house remained whole, and that from 15,000 to 20,000 persons perished, but such statements are always grossly exaggerated. Here is the account given me by a survivor:—

"At about ten o'clock in the evening I was asleep in bed. It had been raining very heavily. On the two preceding days shocks of earthquake had occurred, but not violent enough to throw down houses. The second shock was accompanied by a roar like that of a hurricane. When the great shock came I woke up and felt my bed rolling about like a boat in rough waves; the roof of my house was giving way, the tiles were falling on me, and the walls were heaving and bending. I heard the scream of the people in the Examination Hall, and ran out to help the wounded. I suppose I ran out because my roof was falling; but I was dreadfully frightened and did not understand what had happened until I heard the shouts of the neighbours. I found the Examination Hall overthrown, and assisted in rescuing about thirty persons, but not less than fifty had met their death and lay under the ruins. I then went with the neighbours to help such people as might still be alive under the fallen houses. Most of the deaths occurred in private dwellings. Two families, my relations, one of six persons, the other of eight, were crushed every one. I am quite certain that a great deal more than half the population perished. Fires broke out almost immediately in several places, but were kept down by the rain. Widows and orphans, drawing relief from the granaries, did not suffer much on the score of hunger; but while the fires were burning a sudden cry was raised that the Lolos were coming, and although it was false, more than 200 people, principally terrified women, ran into the flames

or drowned themselves. I was at the time, and still am, a doorkeeper of the Examination Hall. I spent the greater part of the next day or two between the walls of my roofless house, warming myself—for it was cold and wet—by burning the beams and rafters, and overcome with great fear. Soon, however, mat sheds were put up outside the city, in which we took refuge. During the four or five days which followed the calamity the ground continued to heave at intervals, so that water jumped out of the water-butts. At every fresh shock the folk ran out of the sheds, fearing to be crushed by their fall, but very foolishly and unreasonably, since the light pole-work and matting could not have hurt any one, and they did not hesitate to sleep under them. The fact is that everybody was giddy and trembling and scared. Many of the dead were buried by their families, but most were laid together in a great pit outside the wall, where I think I helped to bury 300,000 or 400,000 corpses."

In spite of his absurd notion of number, the old man's story is terrible enough. He added that the houses were soon rebuilt, as well as part of the city wall which had been overturned. The place is neither large nor populous, and, lying some distance from the high road, has very little commercial importance. The interior is fairly clean and neat, owing, no doubt, to its having been so recently rebuilt, but the suburb is thin and mean. The circuit of the walls—about three miles, the regulation ten *li* and three *fên*—encloses a good deal of open space.

Goitre is extremely prevalent in this part of the valley, especially among the women. We saw very few cases before reaching this point.

The weather having been unfavourable for sextant work, I took advantage of a change for the better, and of unusually convenient quarters in the Examination buildings, to halt for a day or two. But there was a more special reason for prolonging my stay. A couple of months before our visit a French missionary, the only European besides myself who has ever entered the city, was driven away by the staves and stones of a mob instigated by the Commandant. My arrival, directly protected as I was by a new and determined Governor-General who had already shown his subordinates that the law, which in China means the Governor's fiat, possessed a strong if not a violent arm, was calculated to put the gallant Commandant in a desperately false position. Having publicly given out that he would never allow a foreigner to pass the city gates, and having incited his myrmidons to lapidate the lonely missionary, he found to his horror another foreigner dawn upon the scene, whom, at the risk of his head, he was compelled to protect with an escort of probably the very satellites by whom the previous persecution had been organised. I therefore considered that I should be doing all parties a service by remaining a few days until the thorns on which the anti-foreign warrior was sitting had effected sufficient penetration.

An amusing detail of the situation was that the Commandant

imagined me to be a Roman Catholic bishop. An officer whom he had been directed to appoint as my conductor to the Gold River inquired in all simplicity and sincerity how many times a week I celebrated mass. It must not for a moment be supposed that the natives of Western China draw any distinction between one foreign nation and another; so far from that, they are apt to include Japanese and Nipalese, and even Manchus and Mongols, in the same category with Europeans. One very soon discovers that any discrimination of so minute a character is far beyond the range of native intellect. I was therefore obliged to accept the position of a foreigner in general, without distinction of race or religion, nationality, language, or business. The authorities believed that my errand was to verify the publicity of the Margary proclamation, and accordingly it was generally posted in some situation conspicuous to our view whenever we entered a city. I took every occasion to explain that such was only a part, though a very important part, of my duty. "I wished also to see how officials and people were disposed towards foreigners. I hoped that the civility which I had received would not prove exceptional. I had been sent to the province to inquire about its commerce, its routes, its produce, and its geography generally." It is needless to say that nobody believed me; but as I freely showed visitors everything I possessed, and betrayed what seemed to them a frivolous interest in very unimportant matters, they satisfied themselves that on the whole I was more eccentric than dangerous. Little obstruction, therefore, was placed in my way so far as regards mere travelling, and those officials whose consciences pricked them for previous sins against foreigners seized the occasion to afford me a too ostentatious protection.

It must be admitted that the Commandant took the most delicate care of me; and thereby of himself. I traversed all the principal streets three times escorted by his retainers, and every here and there emissaries might be seen among the multitude maintaining not only order but silence. The natives were evidently well inclined towards me, but were afraid to answer questions. On the third day the Commandant invited me to visit the lake, informing me that he had prepared a temple for my reception. A journey of an hour and a half brought us to a handsome building a few hundred yards up the slope of a hill, overlooking from numerous balconies a lovely scene of woods and water. Nowhere had we seen a temple maintained in such complete repair, order, and cleanliness, and, unable to explain the mystery, we went to examine the shrine in which the idols are installed. There we discovered that we were in the *Commandant's own temple*, not that it belonged to or had been built by him, but in the sense that Jupiter's temple is the temple of Jupiter. It had been erected to him by a public grateful for his successful exertions against the horde of Shih Ta-k'ai. Incense was urning before the Commandant's image, a slavish likeness, with half-

closed eyes, goitrous neck, and long finger nails as black as life. It is, therefore, no hyperbole to call him the idol of his people; but it is very doubtful if the provincial authorities would be satisfied with the presumption of so insignificant a personage as a commandant in allowing himself to be promoted to heaven before his time. The rogue had evidently invited me to behold his deification.

The lake is about eight miles long by two and a half broad, bordered by thick groves, and commanded by gently sloping hills from 1500 feet to 2000 feet above it. The groves are for the most part orchards. Russet pears of unusual size, fine pomegranates, peaches, plums, and delicious oranges shaped like pears with a lemon-like rind, may be had for little more than the asking. The lake is reputed bottomless, like most Chinese lakes; nevertheless, the buildings of the drowned city are said to be visible in calm seasons, and from its submerged ruins chairs, tables, and bedsteads float frequently to the surface!

Crossing the low hills south-west of the lake, we soon regain the main valley. Somewhere before this point a sandstone region begins, through which the Anning river runs in a very sandy bed, spreading its waters, now tinged with red, round many an island and shingle-bank. Though replenished by numberless rivulets, its volume is not greatly enlarged, the increased supply being carried away with a proportionally greater velocity. The vale narrows considerably at the village of Huang-lien-p'u, an advantageous post, in which a customs and Likin collectorate is installed. The officer who had been deputed to escort us hurried past this place, leaving a note to warn us against halting there, on account of the insecurity of the neighbourhood. Whether in consequence, or in spite, of his advice we put up in the most available inn, surrounded by a wall 25 feet high, with a narrow approach secured by double gates of thick pine-slabs, and inside these a strong barricade. I was lodged upstairs in a chamber, the floor of which was encumbered with heaps of rounded stones ranging between the size of apples and turnips, the use of which I failed to divine; but inquiry showed that they were laid up in preparation for a Lolo attack. During the evening a customs officer came in and related how, a fortnight previously, a band of from twenty to thirty Lolos had entered the village soon after midnight, armed with sticks and stones, had burst in the gate of the Custom-house, possessed themselves of 700 taels (about 200*l.*), the produce of the local dues, and, not content with this booty, had invited the officers and underlings, some fifteen in all, to strip and hand over their clothes. Packing up clothes and silver, the marauders proceeded to confiscate the copper cooking-pans of the establishment, and then withdrew. Now this village contains some 150 able-bodied males, and I naturally remarked that it was a shameful thing that they could not protect their property against thirty Lolos armed only with sticks and stones. My visitor, not in the least appreciating the

bearing of the criticism, replied, "Certainly it is very shameful, but how can you expect Lolos, mere savages, to have any sense of shame?" What is still more disgraceful, the robbers were subject Lolos, and not the autonomous Black-bones. "Had they been Black-bones," the visitor explained, "they would not only have plundered us, but they would have carried us off into slavery as well." I afterwards asked the innkeeper what the people do on the occasion of an incursion. "Climb on to the housetops and wait till the Lolos are gone," was his answer. "Then, what is the purpose of the stones which are piled in my bedroom?" "Oh, they are not of much use; the Lolos throw stones much straighter and harder than we can, and practise every day."

The vicinity of Huang-lien-p'u is much infested by wolves, and we were recommended not to venture far from the barricade after nightfall. What with wild beasts and wild men, a less harried existence might be preferable to that of the local commissioner of customs. Ma-li-chai is a larger hamlet, where we found comfortable lodging in a temple at the north end, and received a deputation of village syndics, who were curious to know where Manchester goods came from. Foreign shirtings are only used for the coat-sleeves of women; the fabric is considered very weak, but the price, three taels per piece, does not seem excessive. They had heard of steamers, but were not sure if such conveyances were adapted for dry land. When I inquired what local productions they were prepared to sell to foreign merchants, they replied "opium and pickled mushrooms," and being advised that the demand for such staples would not be lively, they said they were sorry for it but had nothing else. After a desultory conversation they presented a basket of choice potatoes, specimens of native agriculture, and took leave.

Eight or nine miles further on, the high road and the river suddenly turn to the south-east at a point where a valley runs down from a clearly discernible gap about ten miles away in the south-west. Tê-ch'ang, a busy and flourishing village, the centre of the wax-insect traffic, lies at the junction of the valleys, and communicates with the city of Yen-yuan, three days' journey by a road which crosses the gap. The route is considered easy; a ferry somewhere near midway passes a large river, said to be five times as broad as the Anning, i.e. about 200 yards, clearly the Yalung. Yen-yuan, we were told, is a very small city, closely surrounded by hills in which a good deal of copper and some silver is worked. The name of the place means "salt-springs," of which there are five or six, furnishing the consumption of the city itself and of Chien-ch'ang generally. Less than half the inhabitants of the Yen-yuan district are Chinese, the remainder being principally Moso tribes. A journey thither would probably be worth making if for no other purpose than to visit these tribes, who seem to differ from, and in some respects to be superior to, the Sifans. The Chinese consider them very respectable, neighbourly people, and tell me that many of them are

more than half the women carry the unsightly appendage, and we met children about ten years old with very promising dewlaps. Western China should be a favourable field for the study of goitre, since the nature of the country and the habits of the different peoples are so various. The floor of the valleys which we have traversed from Ning-yuan is mostly sandstone, but the ridges, on the east at any rate, are limestone, and the brooks have run a long way through that rock. It should be remembered, however, that the Chinese, as a rule, never drink pure water but always boil it and infuse tea or some substitute. The prevalence of goitre does not seem at all to depend upon the absolute elevation of country. The Ning-yuan valley is about 5000 feet above sea, and the affection prevails in the lowest parts. On the road between Tung-ch'uan and Yünnan Fu, it is most common at T'ang-tzŭ, a village 10 miles south of Hsün-tien-chou, through which runs a hot chalybeate stream at 6500 feet above sea. There the natives attribute it to the local drinking water, and say that they have tried the hot spring as a cure, but without success. In the much more elevated valleys round Mount Do-ker-la, a famous resort of pilgrims near the Yünnan and Tibetan frontier, the natives assert that only those are affected who drink water derived from the melting snows, the inhabitants of villages which are watered by sources below the snow-line being safe from the swelling, as likewise are such well-to-do persons as never drink cold water. In the district of Yu-yang in Eastern Ssŭ-ch'uan, a limestone country, goitre is unknown. It is observable that it is not prevalent in the topmost regions of a country, that is to say on mountains or near the "divides" of plateaus, but occurs in valleys or hollows, though whether the situation be a confined ravine or a slightly depressed and open amphitheatre is indifferent. That the air may stagnate in ravines and so affect the respiratory apparatus is an hypothesis which cannot be accepted in Chien-ch'ang, where I have seen people blown prostrate by the wind.

The apparently conflicting opinions and statements of Chinese on this subject would seem reconcilable if it be assumed that the drinking water of goitrous villages has not merely run through limestone, but has run for a considerable distance through that rock before acquiring its noxious quality. My observation also points to this simple solution of a much debated difficulty.

After quitting Chien-ch'ang we found the villages much more populous than in that overrated prefecture. Kung-mu-ying is large, but Mo-so-ying is 600 yards long, and prosperous withal, containing several spacious and handsome temples, among which that of the Kueichou Guild is the most notable. Kueichou traders are drawn to this remote village by the manufacture of a stout paper, called leather-paper, made from the bark of the Kou (?) tree,* and used for packing the wax-eggs.

* I have since learned that the "Kou" tree is a kind of mulberry, and that "leather-paper" should be "*bark*-paper."

On the 3rd and 4th of September we wound through a very narrow and tortuous valley full of the murmur of rivulets which plunge into the Anning from the mountain recesses between slopes thickly clothed with plantations of the wax-tree. At the village of Chin-ch'üan Bridge, a strong torrent runs in from a parallel valley on the east, under a stone arch which is the southern boundary of Chien-ch'ang. Crossing its stream we entered the district of Hui-li-chou.

For all commercial purposes Chien-ch'ang may be regarded as a mere road from Yünnan to Northern Ssŭ-ch'uan. Its exports are unimportant, consisting chiefly of the wax-insect and of copper, which, however, comes mostly from Yen-yuan. Indeed, the greater part of the insect export also comes from Yen-yuan or the Hui-li-chou region.

At Kung-mu-ying, a very large village, we take leave of the Anning river, which, strongly reinforced by the Chin-ch'üan torrent, slackens its pace and runs south-west down a narrow glen to join the Yalung. A temple built on a small plateau a short distance south of the village of T'ien-sha-kuan affords a commanding view of three mountain avenues, the further course of the Anning, the road by which we have come, and the morrow's track—three vistas, each little less than 20 miles long. The temple gate is a favourite rendezvous of the villagers, and our arrival attracted a knot of gossips who, finding me curious about the prevalence of goitre, collected for my inspection a number of old women dewlapped like camels. They attribute the excrescence to the qualities of the Yen-yuan salt. The salt of Tzŭ-liu-ching, by their account, has no such effect. They are well aware that seaweed, certain kinds of which enter largely into Chinese cookery, is a specific for the swelling; but they do not seem to trouble themselves much about it, declaring that it does no constitutional harm. It is no exaggeration to say that in some villages

Mongol, Indian, or what not, and finding them persistently rejected, abruptly asks the beggar what mountain peak he would prefer as a model for his head-gear. Peak after peak is cited and described, but the beggar is inexorable until Mount *Tisi* is mentioned, which is presumed to be the highest mountain in the world, and the most regularly moulded. Tisi is said to be in Ngari. Then comes the question of material. All the looms of the known world are set at work to furnish silk and cloth, all the steppes of Asia are explored for felt. But the beggar, who, by the way, is no earthly mendicant, but a spirit, will have none of them. Nothing will please him but the sward of a pasture for stuff, the foam of a steep river for tinsel, and a green sunlit forest for a jewel on his frontlet. Therefore the tailor, who I have forgotten to remark is also a spirit, enumerates one by one famous rivers, forests, and pastures, and at length suits his customer with I know not what paragons of Himalayan beauty.

Some day, perhaps, when the powers that be allow us to enter Tibet, the sources of the Irawadi may be discovered in the crown of that beggar's hat. There is little hope of discovering anything, whether fable or fact, under present conditions, unless it be from the like of the excellent Abbé Desgodins, who permits me to support the latter part of this note with his authority.

(*Tisé* is the same as *Kailasa*, the Hindu Olympus, lying directly north of Lake Manasarovara. See Captain H. Strachey, in 'Journal R. G. S.,' vol. xxiii. pp. 25 and 48. The sources of the Irawadi will never be found under *that* beggar's hat, I venture to say!—[H. Y.])

We left the flourishing village of Pai-kuo-wan on the 7th, and marched over a low but rough limestone pass to I-mên, a small hamlet lying on the bank of a stream which runs into the Huang-sha valley, and there joins, according to native account, the small river which issues under the Chin-ch'üan bridge. We could see, through a gap, a high steep range, the eastern wall of the Huang-sha valley, which I was told is a long, narrow glen, opening here and there into flats, and partly cultivated; rice does not flourish in it, the streams being reputed too cold for irrigation. Besides copper, it produces coal, a good deal of which was being brought to market in the form of coke. It is ill-famed for wolves and other wild beasts which infest it. While we were breakfasting in I-mên a native came in and reported that on the previous evening a panther had chased a dog into a hut where two women and two children were sitting round the fire. All four were badly torn about the face, and the women were not expected to recover.

Crossing a second low pass, we soon entered a flat-floored rice-grown valley between low level-topped hills, which led us into Hui-li-chou, a large city, with a still larger walled suburb, the houses roughly and poorly built, evidently a centre of trade rather than of residence. The population is perhaps about 30,000. The welfare of the place depends entirely upon the traffic which passes through it, and upon the mines. All neighbouring districts removed from the highway, or unconcerned with the mining industry, are miserably and incredibly poor. Its commerce consists of opium, cotton-cloth, raw cotton, raw copper, worked copper, i. e. copper which has been cast into a semblance of pot or pannikin, so as to evade the government monopoly, zinc, and a variety of articles included under the name of hill goods, such as furs, bones of wild beasts, deer horns, musk, and medicinal herbs and roots. Having alluded to the opium and cotton trade in various reports, I need not here enlarge upon it. Metals are the only local produce, and among these is the famous white copper, an alloy which resembles German silver. It is used by the Chinese in the manufacture of various utensils, chiefly perhaps teapots and waterpipes, and is supposed by them to be an original metal. Analysts have found in different specimens different proportions of copper, nickel, antimony, zinc, lead, iron, tin, arsenic, and silver, but the discrepancy is easily accounted for, since, as Baron von Richthofen has remarked, the original material, produced exclusively near Hui-li-chou, is remelted and alloyed for the trade to suit different tastes or purposes. It has also been erroneously supposed that the composition is the produce of a single unidentified mineral. As I learned from the miners, however, white copper is obtained by the combination of two ores, viz. red copper ore and old copper ore. The red copper ore is copper pyrites, but what the old copper ore may be is not so easily declared. It very much resembles the former, and is of about the same hardness, but a little darker in colour. Its specific gravity is 4·5,

Map illustrating the distribution of the Sifan Tribes

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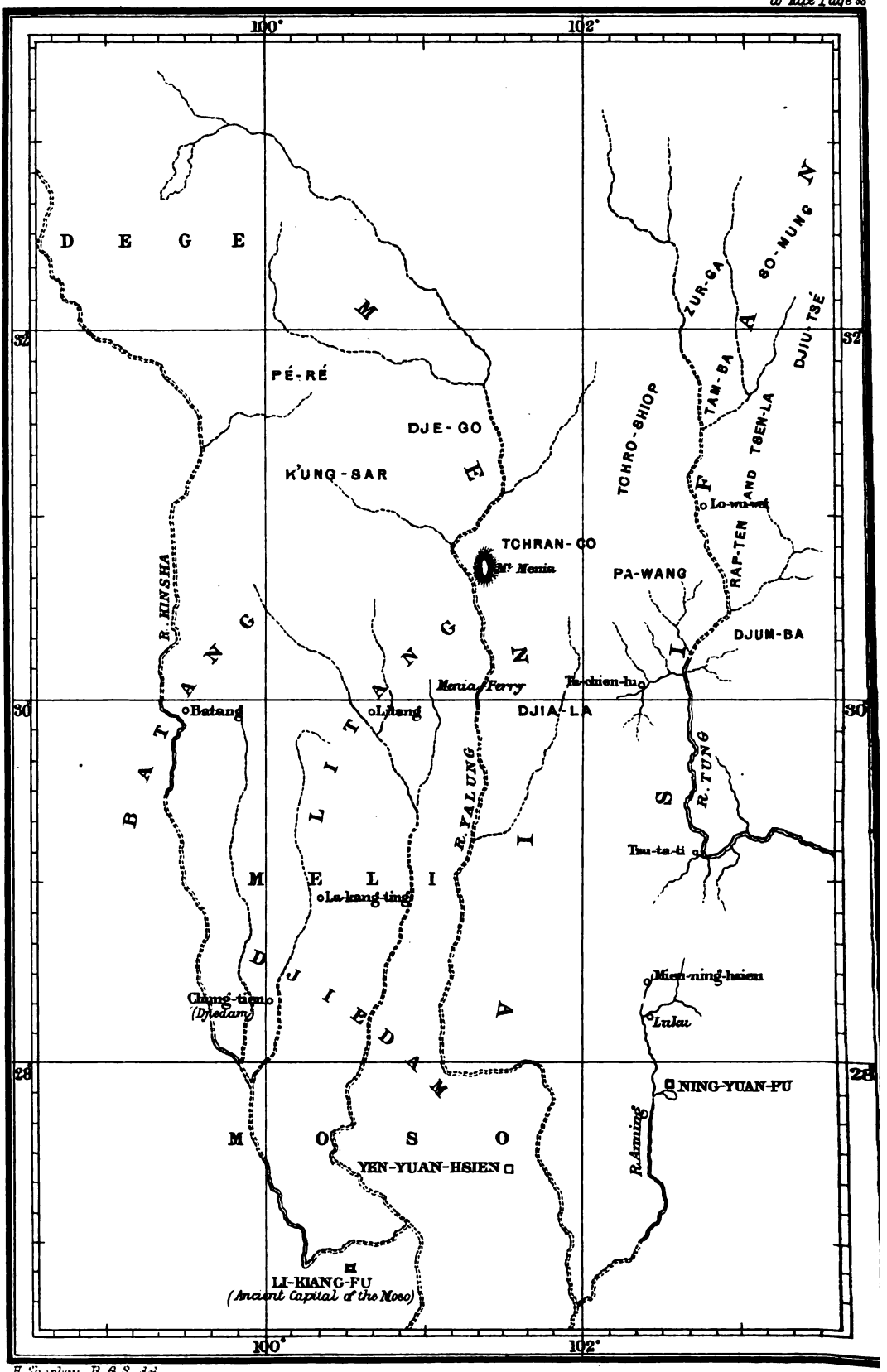

H. Swarbau R.G.S. del.

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and it strongly affects the needle of a compass. Father Vincot, the accomplished Procureur of the Roman Catholic Mission at Ch'ung-ch'ing, having kindly tested my specimens with the best means at his disposal, calls it nickeliferous sulphuret of iron, but his analysis leaves a residue which he has not succeeded in identifying. The miners told me that a mixture of a small proportion of this ore with copper pyrites yields what is locally known as old copper; a larger proportion gives the alloy called white copper.

Hui-li-chou, according to my result, is 6000 feet above sea-level, an approximation which agrees fairly well with Garnier's calculation of 1900 metres, or 6234 feet.* During our journey down Chien-ch'ang we were favoured with bright weather in the daytime, but soon after sunset the sky generally became obscured. The wind was southerly, and often blew great guns. The thermometer showed at 7 A.M., from the 27th of August to the 5th of September, a mean of 67°, from which it would seem that the climate is three or four degrees warmer than might have been expected.

Note on the Sifan Tribes.—Since the national names of the Sifan, cited above, are trustworthy, and several of them are recognisable on the Chinese map, it seems well to make the most of them as a clue to the involved question of the ethnology of the region. Menia, or Miniak, an unobjectionable designation, includes Ta-chien-lu and the last five. For the rest, Nos. 2 to 13, I would suggest that the name Sifan, which has no very depreciatory meaning, and is occasionally used, should be adopted, and should be confined to them. The lost aborigines who sculptured the caves on the Min river and other tributaries of the Yangtzŭ, and who have not yet been satisfactorily identified with any existing people, may conveniently be called Mantzŭ. The Lolo limits are shown on my chart, and the term Miao-tzŭ, not much employed in Ssŭ-ch'uan, may be relegated as a monopoly to the aborigines of Kueichou. Unless some such arrangement of nomenclature be agreed upon in speaking of these various races, the confusion which has already arisen will become inextricable.

Now let us open the Chinese (native) map, and do our best to identify the position of the twelve Sifan tribes.

Djum-ba is known to be Mu-p'ing.

Djia-k'a means "near the Chinese," but is not discoverable, any more than

Wo-je, otherwise *Go-je*.

* *Addendum.* In his introduction, p. 88, to Captain Gill's 'River of Golden Sand,' Colonel Yule gives 5900 feet as the altitude of Hui-li.

(I regret to find that, owing apparently to my having used a wrong figure in converting the metres of Garnier into feet, all the heights in the note which Mr. Baber refers to are erroneous. They should run: Ta-li-fu, 6955 feet; Yunnan-fu, 6397; Tong-chuan, 7152; Hui-li, 6234.—[H. Y.])

Rap-ten (which includes *Tsen-la*) will be discussed further on.

Tam-ba, meaning "sacred," is obviously T'ang-pa.

So-mung, Captain Gill's Su-mu, lies near Sung-pan T'ing according to my informant, and appears on the native map as "So-mo."

Djiu-tse, or *Djiu-tzŭ*, appears as *Chiu-tzŭ*, immediately south-east of the preceding.

Zur-ga is most likely the Chinese Sung-kang, and Captain Gill's Ru-kan.

Tchro-shiop is undoubtedly Ch'o-ssŭ-chia-pu.

Pa-wang is *Pa-wang*; and

Tchra-tin and

Ge-shie defy conjecture.

The annexed sketch-map, which is chiefly a tracing of the native map (with the above names substituted) shows that the tribes in question inhabit the valley of the Chin-ch'uan, "Gold Stream," a waterway which, for some obscure reason, western geographers have conspired to curtail, although it is the upper course of the T'ung, and in lat. 30° is nearly as broad, and apparently as deep, as the Salwen in lat. 25°. Historians have done it more justice than map-makers. A reference to De Mailla will show how the Emperor Kienlung, "seconding the intentions of Heaven," formed the project of exterminating the natives of its wild gorges, and gave the command of his armies to Akuei. How Akuei soon subjugated the "Little Gold-stream" country; with what difficulty he captured *Lo-wu-wei*, the capital of the "Great Gold-stream," and how the King Sonom fled to Karai; how Akuei *sent the Emperor a map of the country*, and how King Sonom gave himself up, was carried to Peking, and after a grand court ceremony was sliced in pieces; after which the emperor repaired in state to congratulate the empress dowager, attributing all the glory of his success to her virtues, and promoted all the mandarins of the empire, both civil and military.

Furthermore, we are told that "the subjugation of the Eleuts, and the spontaneous allegiance of the Turgouts, form remarkable epochs which do the greatest honour to the firmness, wisdom, and power of Kienlung's rule; but the reduction of the Gold-stream tribes crowns the eulogy of a monarch whom, on account of that single expedition, posterity will not fail to elevate above his predecessors." All this pompous cant about the conquest of a few miserable gorges which geographers disdain to recognise.

The conquest seems to have been completed early in 1775, and doubtless made great stir in Tibet. The news reached the court of the Teshu Lama in March of that year, at which period it happened that a certain Warren Hastings, who took some interest in Tibetan ethnology, had sent Mr. George Bogle on a mission to Teshu-lumbu. Mr. Bogle writes:—"The Lama informed me that news was received

at Lhassa of the Chinese having at length, by means of an immense army, subdued *Ribdyen Gyripo*, the rebellious chief who, with a few thousand brave adherents, had defended himself and his hill-bound country against the united power of the Chinese empire."

Mr. Clements Markham, from whose invaluable work on Tibet I extract Bogle's statement, does not explain the meaning of the words "Ribdyen Gyripo," but the clue we now possess leads obviously to its elucidation. The words are equivalent to *Rapten Djiepo* (or Gyalpo), and mean "King of Rapten"; and since *Lo-wu-wei*, indicated on the Chinese map, was the capital, there is no difficulty in roughly placing the country.

The recognition of the above synonyms will be satisfactory enough to persons familiar with the irregularities which occur in the transmutation of Tibetan names into Chinese. The Menia tribes are disguised as follows:—

K'ungsar appears as Hor-k'ung-sa.
Pere „ Hor-pe-li.
Tchrango „ Hor-chang-ku.
Djego „ Hor-cho-k'o.
Maze is unidentifiable.

These are placed in the valley of the Upper Yalung, north-west of Ta-chien-lu and south-east of the rich country of *De-ge*, or *Der-ge*. Tibetans denote them by the general name of *Hoser k'aga*, which means "Five Hoser tribes," and call their country *Hor* or *Horko*. Hor and the Ta-chien-lu district constitute Menia.*

(*Nota.*—It is, however, quite possible that some other insignificant tribes as yet undiscovered should be included.)

Dull and dry as these notes may be, they cannot fail to be suggestive and useful to future explorers, and I need offer no excuse for adducing a proof or two that the Menia region extends eastward of the Yalung. The crossing of that river on the route to Lit'ang is called by Captain Gill, correctly enough, "Nia Chu-ka"; but the full name is "Menia Chu-ka," meaning *Menia Ferry*, i. e. the crossing from Tibet into Menia. Captain Gill has probably taken note of the curious octagonal stone towers which are passed on the way from Ta-chien-lu to the Yalung, and are not encountered further west.† These ancient buildings were described to me as consisting of two stories, the lower of which is in plan an octagonal star, and the upper a square chamber. The octagonal (i. e. eight-pointed) part is solid to a height of some 12 feet, above which very narrow loopholes are pierced in the angles (not

* This word "Hor" must not be inconsiderately confounded with the Hor which denotes the Turk races of Northern Tibet. The latter is pronounced as in the English word "hurry," the former as in "horrid." At the same time it is quite open to theorists to make as much as they fairly can of so seductive a consonance.

† See 'River of Golden Sand,' ii. 236.—[H. Y.]

the points) of the star. Flat slabs laid on the summit of the octagon support the upper chamber, which has no door, windows, or loopholes. What the use of these buildings may have been is unknown, but the presumption is that they were watch towers; for the present purpose it is enough to know that they are universally said to have been erected by the Menia, and that there is nothing resembling them west of the Yalung on the main road.

Again, the Chinese map indicates a peak, or a range, east of the Yalung and north-west of Ta-chien-lu, under the name of "Mount Meniak" (Min-ni-ya-k'o), or the "Menia mountains."

Menia must be carefully distinguished from *Meli*, a country of which almost nothing is known, lying south of Lit'ang and west of the Yalung. I can only learn that the language of its inhabitants is unintelligible to Tibetans. The Chinese call it the "land of the Yellow Lamas." The *Mili* of D'Anville's map is probably its chief monastery; *Lar-kin-tin* of the same geographer is situated, according to the Chinese map, in Meli territory, and is styled "the monastery of *La-kang-ting*." South, again, of Meli lies *Chung-tien*, also a Tibetan country, which D'Anville has indicated under its Tibetan name of Tchia-tam (*Djie-dam*). Chung-tien is in the jurisdiction of Yünnan, and without digressing much further I will only remark that *Li-kiang Fu* is the ancient capital of the *Moso*, who are called *Djiung* by the Tibetans and *Nashi* by themselves, and that still further south we come to the *Min-chia* (a Chinese term) aborigines, who form a very strong minority of the inhabitants of Tali Fu and the surrounding districts. The sketch-map, which cannot be grossly erroneous, shows the position of most of these tribes. The blackened river-reaches indicate the parts which have been visited by Captain Gill or myself.

To return to Menia and to Dege. A native of the latter country informed me that his fatherland is north of Lit'ang between the Yalung and the Kinsha, and is bounded northwards by the Mongols of Koko-nor. He affirmed, perhaps with patriotic exaggeration, that it is the richest and most populous of all Tibetan kingdoms, consisting largely of cultivated land which yields one crop yearly. From the latter statement we may conclude that its mean elevation is 10,000 or 11,000 feet; the lowest valleys of these regions produce two harvests, while high plateaus like Lit'ang grow nothing at all. On being asked if it is more populous than Lit'ang, for instance, my informant replied that since it supports more farmers than shepherds it is of course more populous. Large villages of thirty or forty families lie somewhat closely over the whole of its extent, and it contains many lamaserais of 200 or 300 monks, some indeed of 2000 or 3000. Forests are rare, informant explaining that the land undulates, but does not break into ravines and ridges; consequently, he argues, there can be no forests of any extent. There are no destitute families. No family is so poor as not to own a

horse, and he considers the horses of his country to be the best in the world. Many of the farmers possess 4000 ounces of silver, but a grazier who owns 2000 yaks is considered wealthy. Each family devotes a son to the priesthood, and the monks are consequently very numerous. The king resides in a lamaserai of 300 monks. The natives are affluent, because their country is independent of Lhassa, and distant from any main route.

In Tibetan countries the distinction between lowlands and highlands —ploughland and pasture—is very strongly marked; wheat is as great a luxury in the latter as beef and mutton in the former, and many other antitheses might be cited, the most remarkable of which is that polygamy obtains in valleys, while polyandry prevails in the uplands. In the valley-farms, I am told, the work is light and suitable for women; but the rough life and hard fare of a shepherd on pastures 13,000 feet or more above sea-level is too severe for the sex. This explanation has been given me by a European of great experience and long residence in these countries, whose personal conviction, though adverse to marriage in his own case, is strictly monogamous; nevertheless, he feels compelled to admit that the two systems, working side by side, mutually compensate the evils of each, and that both are reasonable under the circumstances, and probably requisite. The subject raises many curious and by no means frivolous questions, but I cannot help thinking it singular that the conduct of courtship and matrimony should be regulated by the barometrical pressure.

De-ge, however, is chiefly a country of husbandmen (a word not devoid of appropriateness in this connection). Four thousand ounces of silver is a great sum in Eastern Tibet, whereas 2000 yaks would be considered rather a mean drove by the nomad graziers of Lit'ang. My informant's remark that De-ge is well-to-do because it is distant from any great highway, although it seems to contradict the first principles of political economy, is most undoubtedly logical. The imposts levied upon the subjects of Tibetan rulers are of two kinds—a land tax, which is very light, and a forced contribution for the travelling expenses of officials, which is a most burdensome exaction. Officials, Chinese or Tibetan, travel free of expense, the people of the district through which they pass being compelled to furnish pack-animals and drivers, and to supply all the wants of the magnate and his retinue. When it is remembered that the officials travel with long cavalcades of merchandise, and that the population is about the scantiest in Asia, the severity of such a corvée will be understood. But the evil pierces deeper than this. The contribution of toil, or of kind, is commuted for a money payment much above its value, which the *Debas* (a Tibetan name for Tibetan officials) instruct their subordinates to collect. The subordinates increase the demand, with the view of appropriating the surplus, and send out their emissaries, each of whom again makes a further addition to the levy, so that the sum-

total ultimately amounts to four or five times the expenses of the traveller. This is the great hardship of the farmer, and almost the only source of the private revenue enjoyed by native officials. It must not, however, be supposed that all districts apart from highways are free from the exaction. It is collected generally all over any Tibetan country, through any part of which a main road passes. But De-ge, it seems, is too far away to be affected.

Although Degeans are disinclined to accept the statement, it is pretty certain that their nation has lately acknowledged its feudal submission —"tied its head" (*Gota*), is the local expression—to Lhassa. A supposition seems to prevail among Europeans that the region which geographers have included under the general name of Tibet is an integral state, subdivided for administrative purposes into separate provinces. Although the assumption is quite erroneous, some palliation of it may be found in the general use by Tibetans of the term "*peu*," pronounced as in French (not, with due deference to Mr. George Bogle, like the French "*pu*"), which is written "Bod," and is doubtless the origin of the final syllable of our word "Tibet." A Tibetan arriving in Ta-chien-lu from Lhassa, on being asked from what country he has come, will often reply, "From *Teu Peu*," meaning from "High" or "Upper Tibet." Perhaps "Teu Peu" is the source of our Tibet, and if so it is equally correct to write "Tibet" or "Thibet," since the word Teu is pronounced indifferently with or without an aspirate. A native employs the expression "*Peu Lombo*" ("Tibet country") to designate *en bloc* all the Tibetan-speaking nationalities, without intending to convey the least insinuation that they are subject to Lhassa. The state of which that city is the capital is called "*Lha-sa De*" ("territory of Lhassa"), or "*Deba Jung*" ("land of the Debas," but the etymology of "Jung" is said to be uncertain), and is merely one, although admittedly the most prominent, of a large number of states governed by kings very little disposed to imagine themselves subordinate to the king, or regent, of Lhassa. King Alfonso of Spain may recognise the dignity, and venerate the sanctity, of the Dalai Lama of Rome, but it by no means follows that he acknowledges himself a tributary of Humbert the First. Nevertheless, it is curious to find that the Government of Lhassa levies war, with the direct and avowed purpose of conquest, upon other states without any material opposition, and indeed almost without any notice, on the part of the Chinese Government. An illustration of this condition of internal relations may be found in the story of *Pun-ro-pa*, which was recounted to me as follows:—

In the year 1863 a war broke out between some of the Menia tribes and De-ge, excited, it is said, by the lamas of the latter kingdom. After a vain appeal for assistance to the Chinese Government, the king of Dege "tied his head" to Lhassa-de, whereupon the regent of that country despatched an army to his aid under Pun-ro-pa, a military officer of the

third rank, who succeeded, after some reverses, in routing the Menia and annexing their territory, including even a part of Djia-la, to Lhassa-de. The conquest was consummated in 1866, and Pun-ro-pa was appointed viceroy—a new title for the occasion—of the newly-acquired dominion. He held sole command during the ten following years, living with barbaric state on the steppes in a magnificent tent, on wheels, hung with the skins of Indian tigers, and drawn by the finest horses, or, on grand occasions, by stags. A numerous band of retainers bearing jewelled arms and clothed in rich uniforms trimmed with otter-skins, attended him on his progresses; but a good deal of his time was spent in a residence which he built at Lit'ang.

The villages in the valleys—there are, of course, no villages on the pasture-lands—having been destroyed during the war, Pun-ro-pa set about rebuilding them, and made some attempt to re-establish an administration; but as soon as a certain order was restored, he began to enrich himself at the expense of the submissive public, and speedily caused a revolt. The outbreak was repressed, but he did not succeed in preventing the complaints of the overtaxed Menia from reaching the ears of the regent and ministers of Lhassa-de. Peremptory orders were sent him to relax the excessive impost—a land-tax—which he had instituted, and he was compelled to devise other methods of feathering his nest. The original invention by which he attained his purpose is another proof that a conqueror is not always a judicious administrator. His scheme was based upon an ingenious system of court-fees and convict-labour. All causes were in the first instance submitted to him, but before the pleadings could be heard both litigants were obliged to wash gold for one year in the sands of the Lit'ang river, the proceeds being paid into court, i. e., into the pocket of Pun-ro-pa. Judgments were, as a rule, summary, and the unjustified were returned to the diggings to work out a second term of gold-washing for the benefit of the Bench.

Pun-ro-pa thus became the most prominent personage of his day, and if he could have withdrawn his family from Lhassa no one doubts that he would have declared himself independent. He now entered upon a new career as a diplomatist, having been instructed by his Government to intrigue for the annexation of Lit'ang and Bat'ang. The recovery of the rich pasture steppes of the former state has always been a purpose of the Lhassa regents. During his frequent visits to Lit'ang, Pun-ro-pa had become intimate with the Chief Deba and his brother-in-law the Second Deba; the desirable friendship of the distinguished and opulent viceroy was eagerly sought and freely accorded, and one day Pun-ro-pa's young daughter was brought down from Lhassa in a splendid wheel-tent and married to the Chief Deba. The wedding preliminaries included a contract by which the Debas "tied their heads" to Lhassa, without, however, promising to aid openly in the annexation of their territory.

When the French missionaries were expelled from Bonga, Pun-ro-pa

was deputed to investigate the outrage. The cause of Christianity, as may be imagined, did not derive any very great advantage from his action, but he took the opportunity to gain over the Debas of Bat'ang to the side of Lhassa with the argument: "Lit'ang is already ours, and will soon declare itself; if you do not speedily consent, you will be enclosed in Lhassa-de by the annexation of Lit'ang, and it may then be too late." It is known that the Debas assented and signed a convention of the desired purport, but both of them perished in the earthquakes of 1870, and the natives opine that the document was destroyed in a fire which broke out after one of those memorable shocks.

It will naturally be asked, what steps were the Chinese officials resident in these countries taking to repress such intrigues and invasions? It must be replied that the *Chantui* (Menia) tribes, against whom the acquisitiveness of Lhassa was more overtly directed, have never completely submitted to China. Moreover, at the period of Pun-ro-pa's career of conquest, Ssŭ-ch'uan was administered by the Governor-General Lo Ping-ch'ang, whose policy was averse to the expensive maintenance of the imperial establishment in Tibetan countries, yielding no advantage to China, already embarrassed and impoverished by the Taiping rebellion. Nor is it the general policy of Chinese officials to interfere in Tibetan disorders. "These are the quarrels of dogs; why should we shed Chinese blood in favour of this or the other brute?" is their ordinary phrase.

The Chinese Commissary of Lit'ang did, however, take alarm at the situation, and by way of making the Debas declare themselves, ordered them to shave their heads and wear the Chinese dress; but he only succeeded in persuading them to do homage on New-year's day in Chinese dress, but without the Chinese coiffure.

The schemes and seductions of Pun-ro-pa were ultimately defeated by the jealously which his success and his pretention had excited at Lhassa. The four Ka-lun (Ministers) of the regent grew alarmed at the progress of his power, and succeeded in causing him to be recalled. For several years he managed to evade the order, until, in 1877, satisfied that he could now aspire to the position of a Ka-lun, or to some new authority which, like his title of viceroy, might be specially created for him, he deigned to return. His eminent services gained him great consideration at first, but his ambition made him so unbearable that he died suddenly in December 1877, in Lhassa. His son died suddenly in the same month and in the same city; and in the same month his daughter, the wife of the Deba, died at Lit'ang. His remaining blood-relations disappeared about the same time, and the family is now extinct.

The moral of Pun-ro-pa's ambition and fall is sufficiently evident, and the King of Djia-la, a confirmed enemy of Lhassa-de, has saved me the trouble of pointing it. A missionary happened to be present when

the news of Pun-ro-pa's death was brought to the king. His Majesty remarked, with a tone of regret, "I wonder what has become of all that gold."

Mr. T. T. Cooper, who passed through Lit'ang in 1868, the year in which Pun-ro-pa went to Bat'ang, does not make mention of the famous Tibetan general; but his account of the Chantui—a name which he writes Zandi—evidently alludes to the war which had just terminated. Soon after crossing the Yalung he hears of "the dreaded Zandi tribe, inhabiting the mountains forty miles to the south-west of this district. Only the year before a party from this tribe had destroyed the house of my host, and carried off into slavery many of his relations. These Zandi tribes, for there is another tribe in the country to the north, are the only Tibetans absolutely independent of the Chinese government. Under the rule of hereditary chiefs they cultivate the mountain glens with bearded wheat and white peas; but they are also bandits on a large scale. Every now and then they issue from their fastnesses, well mounted on hardy and swift ponies, and sweeping through the well inhabited valleys of the more peaceable Tibetans, surprise and burn the villages, and carry off crowds of captives and herds of cattle and sheep to their mountains. The northern tribe is the most powerful; but their present chief is allied by marriage to the old Tibetan king at Ta-chien-lu, and on friendly terms with the Chinese and Tibetan governments; abstaining from predatory excursions, but maintaining absolute independence like the southern tribe. They are very warlike, and appear to be divided into several clans, constantly engaged in deadly feuds with each other, but uniting in one common cause against attacks from without. They also are cultivators, and rich in slaves, herds, and flocks. Both tribes acknowledge the spiritual power of the Grand Lama at Lhassa, and maintain Lama priests."

The "northern tribe" here mentioned is unquestionably De-ge; the king of that state married the sister of the king of Ta-chien-lu. According to Mr. Cooper's information, therefore, De-ge is a Chantui nation.

Speaking of the town of Lit'ang, the same traveller writes: "One thing struck me very forcibly, and that was the peculiar physique of the people, differing from that common amongst the people of Tibet, who are very tall and large framed, having dark complexions, and a profusion of black hair hanging over their shoulders; many of the Lit'angites, on the contrary, were thick, sturdy fellows, with short woolly hair, and light complexion. I tried in vain to obtain any explanation of these racial peculiarities; though it was said that some of these people had come from countries to the south of Lhassa."

It is pleasant to be able to explain Mr. Cooper's difficulty. I ascertained that the "thick, sturdy fellows, with short woolly hair and light complexion," belonged to Pun-ro-pa's body guard, and were natives

of Lhassa-de, or of some neighbouring country, and not of Lit'ang. The difference in shape and feature between the Western Tibetans and those of Kham (Eastern or Lower Tibet) is very marked; but the complexion of these highlanders is a mere question of sun and wind, and dirt.

Addendum.—It will have been perceived by those sagacious persons who deny the value of intuition, that the argument by which I have attempted to connect Marco Polo's Ciandu with the Chantui ought to have elucidated the ethnology of the Tzŭ-ta-ti people, and should at least have shown that the so-called Sifan of Chien-ch'ang lay claim to a Menia nationality. The world contains only one geographer to whom I could have appealed against such baseless and morose objections, and fortunately he has given judgment, even before the appeal could be lodged, in his "Introductory Essay" to Captain Gill's 'River of Golden Sand,' which I have just received. He reproduces a note from Mr. Bryan Hodgson, which speaks of a mendicant friar from *Manyak, a native of Ka'kho, six days south of Ta-chien-lu.* Now *Lo-ku* is six days south of Ta-chien-lu, *viâ* Tzŭ-ta-ti and Mien-ning, and is very likely the same name; but however that may be, it is quite clear that Mr. Hodgson's *Manyak* was a native of the Chien-ch'ang valley. That *Manyak* is the same as *Menia(k)* is not worth the trouble of writing.

To hint the nationality of the people of Tzŭ-ta-ti, I have only to write down their numerals, with the numerative affix *bu*, and over against them to place the numerals of Mr. Hodgson's Manyak. But I protest against *Skwibi; Skwibi* is impossible.

1. Tŭ-bu	Ta-bi.
2. Nŭ-bu	Na-bi.
3. Si-bu	Si-bi.
4. Jro-bu	Rê-bi.
5. Ngei-bu	Nga-bi.
6. Tch'u-bu	Tru-bi.
7. Shun-bu	Skwi-bi.
8. Jih-bu	Zi-bi.
9. Ngo-bu	Gu-bi.
10. Tch'i-tch'i-bu	Chê-chi-bi.

The rather long shot registered on p. 83 of the "Introductory Essay"—("the Manyak are probably the Sifan south of Ta-chien-lu")—is, therefore, another hit to be appended to the score of a famous marksman.

Captain Gill has an allusion to Pun-ro-pa, on p. 198, vol. ii. (but spells him with a *k*—Peun-kop-pa—"farewell renown!"), and it is interesting to find it mentioned, on p. 222, "that everything good came from a place called *Turkai*, or some such name, lying to the north of Lit'ang and Bat'ang, and eleven days' journey from both. The chief's best horses came from there, so did his saddles; all the jewellery, except the

Lhassa work, is said to be made in that town, and no swords or guns of any value are turned out from any other manufactory. Altogether it ought to be an interesting place, and well worthy of a visit."

Now *Tur-kai* is the Chinese form of *Der-ge* or *De-ge*.

5. The Banks of the Gold River.

Frequent rains confined us for four days to the Examination Hall of Hui-li-chou, after which, in spite of a still unpromising sky, we turned eastwards and followed for three days part of Mr. Garnier's route, which has been described by Mr. de Carné in the *Revue des Deux Mondes*. It is a strange district, well deserving the attention of a geographer: a barren series of low sandstone ranges curiously devoid of vegetation, about half the surface being thinly grown over, and the remainder, chiefly the upper slopes, consisting of nearly bare rock of a reddish or a brown-red hue. These downs are in fact almost a desert, with a very scant shrubbery of fir-groves. But the heavy rains and wild winds which denude the more exposed slopes fill the glens with a productive soil, and many narrow hollows are carefully cultivated. The grain known as "red" rice grows luxuriantly in these damp, not to say flooded, crevices, and on their edges maize and tobacco are planted, and the broad sunflower bows to the east from a stalk seven feet high. Chili-pods, almost the sole export, attain great size in such favoured nooks, and potatoes abound.

In many places there is no road. The streams are numerous, broad, and violent, but ferries are rare and bridges unknown. We had to make the best of our way through the fords, happy when the water was below our waists; when deeper than that measurement the rapid streams were unfordable and a long détour became necessary. The natives are ragged and ill-fed. Near K'u-chu I saw a girl of ten or eleven years of age, whose only clothing was the embroidered shoes which cramped her club-feet. A more extravagant instance of the influence of fashion could hardly be cited. One day our coolies had a journey until noon on empty stomachs, being unwilling to submit to the demand of four cash for a boiled ear of maize. The sparse hamlets do not afford sufficient accommodation for carriers, who have often to rough it in mat sheds or under the eaves of a hovel, in view of which prospect they provide themselves with Lolo cloaks. Yet this track is a Chinese trade-route, the highway from Hui-li-chou to Tung-ch'uan.

The wealthiest proprietor in the district is a young gentleman of low stature, nineteen years of age, named Lung, whom we met in K'u-chu. His land is let to thirty farmers, who pay him in the aggregate thirty-six *tan* of rice annually. One *tan* is three hundred Chinese pounds, and the odd six *tan* suffice for the wants of his family. The

remaining thirty *tan* are worth about 30*l.*, of which he has to pay 8*l.* in dues, whereby it may be seen that his income is 22*l.*

Determined at all hazards to take the shortest cut out of such a country, we deserted the main route at K'u-chu and struck north-east into the mountains, ascending a slope which rose gradually but continuously until, after a four hours' walk, we attained a ridge nearly nine thousand feet above sea-level. The hill-tops are here much less bare than the region we had abandoned, and even near the summits a few patches of buckwheat may be seen, far distant from any habitation. We did not pass a single native, much less a cottage, in six hours' journeying. There is no road, but only devious paths, which of course lead the villagers to their fields and pastures and do not follow the easiest gradients or the most direct routes. Overtaken by rain, we were very glad to reach, towards dark, the hamlet of Tu-ké, lying in a hollow, of which about two square miles are cultivated, partly with indigo. Some forty mud hovels compose the hamlet; peeping through the doorways, we could see the family circles seated on the mud-floor round brushwood fires, and dining off potatoes and maize. The young people up to the age of fourteen are clothed in a single garment of sack-cloth, even the Lolo felt being beyond their means. From this point, to the banks of the Gold River, we were greatly perplexed by a currency question. Soon after leaving Hui-li-chou we found small and debased cash in use, fourteen hundred of which the traveller may obtain for a thousand ordinary cash; but when he finds it necessary after a journey of two days to get rid of the local coinage on leaving the district in which it circulates, he is obliged to pay *fifteen* hundred debased cash for a thousand current coins of the realm. This exchange difficulty enters into every transaction, no matter how insignificant; maize-ears, oil, and rice are all haggled over, and always to the detriment of the stranger. Such a condition, though exasperating, is more or less explicable; but at Tu-ké the circulating medium has fallen to a depth of degradation which almost outvies comparison. There the local cash exchange for silver at the rate of forty thousand per Chinese ounce—in other words, one hundred and fifty of them are equivalent to one British farthing. They are mere rings, rather more than a third of an inch in diameter, without any pretence of a superscription. Even the natives do not generally count them, but rather measure out certain lengths of them on a board. But a further complication arises from the natives refusing to accept payment from strangers in these coins for local produce; the seller demands ordinary coins, and possesses erroneous but invincible opinions about the rate of exchange. Owing to the lack of comestibles, and the abundance of coins, it took us longer in that country to pay for our dinner than to eat it.

The best lodging we can find in Tu-ké is a small ruined temple of one chamber, without deities, doors, or windows. We soon light a

blazing fire of brushwood round which every one huddles in hopes at least to dry his steaming clothes; for the piercing wind and rain, finding easy entrance, allow little prospect of getting seriously warm. A meal of potatoes and maize is not exhilarating, and the blinding smoke and flickering rush-lamp do not conduce to accuracy of mapping or freedom of thought in posting up a journal. In the morning everybody is ill-tempered and mutinous, but a factitious bond of union exists in the general anxiety to get away from such inhospitable quarters, in spite of the continuous rain. In consequence of such troubles, we only made some seven miles on the 15th, glad to find more comfortable lodging in the residence of a T'u-ssŭ, or hereditary chief of subject Lolos, Lu by name. The place is called Ché-po and is nominally a village, but does not contain more than a dozen huts. Lu's residence, however, has evidently been a handsome and extensive establishment; its white walls still show imposingly in the distance; but after passing the court-yard, which retains some remnants of former elegance in a series of stone panels carved with animals and foliage, we found little but ruin inside. The chief is a tall, good-looking young man, twenty-three years of age, a Lolo *pur sang*, but being under Chinese jurisdiction his dress and bearing are Chinese. His manners would be pleasing were it not for the clammy lacquer of Chinese etiquette which his position as a blue-buttoned official has plastered over him. One detects the Lolo, however, even under such disguise; the Chinese skull-cap sits uneasily on his crown, and droops forward with a sidewise cant in the manner of the Blackbone's horn. Occasionally, too, he speaks more directly and boldly than a Chinaman would venture to do. I caught a glimpse of his wife, a graceful, clear-faced girl, as she was engaged in catching a glimpse of me, and remarked her Lolo petticoats and bare feet. Lu's situation, between the Chinese and Lolo fires, is anything but comfortable; the Chinese officials treat him as a savage, while the Lolos regard him as a renegade; his succession to the blue button of chieftainship—or, more truly, of subjection—was only secured by heavy payments to the local Chinese authorities, who were thereby induced to petition the Governor-general for his recognition. He receives no salary. His establishment, his court of justice, his soldiers, officers, escort, and underlings, a hundred persons in all, are maintained at his cost. Although he owns a very wide property both in Lolodom and in the country we have been traversing, agriculture affords so small a return that he expressed his intention of embarking in the wax-insect traffic, or preferably, if he can form a connection, in the import of Yünnan opium. His residence at Ché-po was demolished by Shih-ta-k'ai's army; the total loss which his family suffered by that invasion he estimates at 7000*l.*, since besides the destruction of house-property he was plundered of a collection of valuable objects which had been amassed by an immemorial line of ancestral chieftains. He possesses,

however, other mansions besides that of Ché-po, and in far better preservation. The village of K'u-chu,* otherwise Tsan-yü-pa, is built upon his property. All the mountains and vales between the stream which passes that village and the Gold River have been the domain of his family since the beginning of time, a period which, I displeased him by observing, must have been a good many years ago. His retainers and servants are all hereditary. His people submitted to the Chinese domination during the reign of Kien-lung. Should he have no children the succession is still secure, for he has several hundreds of relations, any one of whom, even among the females, is eligible for the chieftainship. On the Chinese map his territory is written "*Cho-pao*," a corruption of the name of this village.

The plague of his peace has been the Huo-erh-liu (apparently not a Chinese term), a banditti, composed mostly of Chinese outlaws, which infest the border all round Lolodom. The outrages which are attributed to the Blackbones—always excepting the slave hunts—are in general committed by these freebooters. A deep valley called Mu-ti-lung, bounded by a high black-looking range of the same name, which was visible to the northwards during the last two days' journey, had until a few months before my visit been the headquarters of one of such robber-chiefs, Chang San Piao-tzŭ ("Chang, the third spearman") by name, whose habit was to waylay Lolos and to exact a ransom by compressing their heads in an iron ring. Unable to obtain redress from Lu, who is powerless against Chinese, the Lolos assembled, surrounded the village of Mu-ti-lung (otherwise Hsin-kai-tzŭ), secured Chang, conducted him to the bank of a river, and there decapitated him. This act of wild but condign justice has been represented to the Chinese authorities as another Lolo atrocity, and Lu is held responsible for it. During the sway of Chang, Lu had to maintain a force of nearly a thousand men for his own protection, at great expense, and he is now in process of disbursing what is likely to prove a still more formidable sum in presents, which he hopes will secure him against an accusation of murder.

With regard to myself, Lu had received instructions from his Chinese superiors to the effect that "they had not been informed of the purpose of my journey, and that the deputies who had been appointed to escort me from place to place had each and all uniformly failed to discover it. Nevertheless it would be well for him not to cause trouble." Such a system of suspicion and antipathy is pre-eminently Chinese. Incapable of speaking the truth, they are equally incapable of believing it. It was

* Such names as K'u-chu, Tu-ké, Ché-po, Wa-wu, Mu-ti-lung, are Lolo. These several places also possess Chinese names which are little used, although but few Lolos are now found in the country. Lolos, however, still inhabit parts of the district round Ta-ch'iao (*vide* Garnier's chart); a place which, by the way, is called *Old Hui-li-chou* on the Chinese map, and is mistaken for the modern Hui-li-chou on most European maps.

vain to repeat on all occasions the assurance that I had come to see what facilities the country offered for trade, or to exhibit a safe-conduct from the Tsungli Yamên containing the same simple declaration. "Chercher midi à quatorze heures" is a pursuit in which Chinese officialdom has attained high proficiency. In the lower part of Chien-ch'ang the authorities had given out that I was a member of the Imperial Manchu family, sent on a private mission to inspect the border!

Leaving Ché-po we crossed a ridge, descended into a valley, forded a large stream, and then mounted a high range, from the summit of which we descried the line of mountains which form the right bank of the Yangtzŭ. It is not likely that Marco Polo came this way from Hui-li-chou; he probably continued his route southward from that city into Yünnan. But why does he call the Upper Yangtzŭ by the name of *Gold River* instead of *Golden Sand River* (Chin-sha-chiang)?* To any one who feels confidence in the accuracy of the Venetian's narrative the answer to such a question should appear direct and decided—Marco simply wrote down the correct name as it was given him by the natives. And there is in fact no mystery whatever in the matter; the river is never called locally by any other name than *Chin-ho*, or "Gold River." The term *Chin-sha-chiang* should in strictness be confined to the Tibetan course of the stream; as applied to other parts it is a mere book name. There is no great objection to its adoption, except that it is unintelligible to the inhabitants of the banks, and is liable to mislead travellers in search of indigenous information, but at any rate it should not be supposed to asperse Marco Polo's accuracy. *Gold River* is the local name from the junction of the Yalung to about P'ing-shan; below P'ing-shan it is known by various designations, but the Ssŭ-ch'uanese naturally call it "the River," or, by contrast with its affluents, the "Big River" (Ta-ho).†

As we came down the slope we began to notice, at the height of about 4000 feet above the river, that the path had cut deep into the mountain-side and that we were passing between vertical walls of a deposit which might easily be mistaken at first sight for a very soft sandstone. Further on, when the view began to open out as the lower spurs were approached, it became evident that most of the slope was covered with this substance, and to no slight depth judging from the

* Mr. Baber's memory has misled him here. Marco Polo nowhere calls the river "Gold River." The name he gives it is *Brius*, which appears to be a corruption of one of the Tibetan names. He says indeed: "In this river is found much gold-dust," Bk. ii. ch. xlvi.—[H. Y.]

† Between Sha-shih and the confluence of the Tung-ting Lake the Yangtzŭ is sometimes called *Ching-ho*, a name which Captain Blakiston very pardonably confounded with *Chin-ho*. That term, however, means "Thorn River," and is obviously taken from the ancient name (Ching) of the country which the river drains, much as the word *Yangtzŭ* is traced to the kingdom of Yang. The cities of Ching-chou and Yang-chou have retained the names of the primitive states.

fissures which seamed it. Thrusting a knife into the face of one of the walls at about twenty feet below the general surface, we extracted a snail shell and a small calcareous concretion. Still lower down, where the road ran nearly level for a few hundred yards, we passed along the brink of a crevasse with truly vertical sides and sharp edges, about 60 feet deep by 12 broad, having a stream at the bottom and other crevasses branching from it. The colour of the deposit is a brown-yellow, with a reddish tendency; its substance, though not very easy to dig into *in situ* with a knife, crumbles into fine particles and does not differ in appearance from loam. While I was looking into the crevasse my servant, who had travelled with Baron v. Richthofen, came up and said—"This is the kind of earth in which the people of Shansi dig caves to live in; but in that province the precipices are so deep that it makes one giddy to look down." There can be hardly any doubt that he was right, and that this layer of dense and almost rock-like loam is the same as the *Loess* of Northern China.

The discovery in so unexpected a quarter of a patch of vertically cleaving loam cannot fail to interest geologists. It extends from near the Yangtzŭ bank to about 4000 feet, perhaps a good deal more, up the mountain-side. How deep it may be it is impossible to say from so cursory a view, but perhaps 50 feet would not be too high an average. On the right bank at Ch'iao-chia-T'ing, the place where we crossed, the deposit is hardly perceptible, but a mile or two further south the narrow strip of exceedingly fertile land on the river bank, known as Mi-liang-pa, is said to be covered with it. I cannot affirm that it existed westward of the mountain-ridge on the left bank, but I have an *ex-post-facto* idea that thin patches occur between Ché-po and Ta-t'an-kuan-yao. The thickest layer we came across is about two miles up the hill-side above Wa-wu, the village where we struck the river.

With so superficial a knowledge of the subject, and of the locality, it may be presumptuous to possess an opinion respecting the mode in which this soil has been formed; still there is no harm in hinting a suggestion, though it may seem a fanciful one. The idea that the deposit may have been submarine is hardly conceivable. If it had been formed by the steady secretive waters of a lake—as it is very probable that this part of the river was at one time a long lake before it had drained down to its present level by the opening or erosion of the gorges further on—then we should have expected the layer to show a more or less horizontal surface; a condition which it does not in the least fulfil, but merely coats the undulations of hill spurs. Moreover other lakes in the neighbourhood should have amassed a similar sediment, which they have not done. The plain of Tung-ch'uan for instance, evidently a lacustrine flat and indeed still a lake in part, is a peat-bog from which peat is dug for fuel. Under the lake theory one would look for loess, but without finding it, in every hollow above a Yangtzŭ gorge.

Whence then has this exorbitantly thick soil been derived? Is there any contiguous region which is exceptionally soilless? Most certainly there is; for the face of the plateau between Hui-li and K'u-chu, as we have seen, is strangely naked, containing wide expanses of almost bare sandstone. But does any cause exist to convey soil from that district to the slopes of the Yangtzŭ depression? It seems sufficient to reply that the winds of winter and spring blow from the south-west and west, precisely in the requisite direction. But why should such winds fail to carry the particles beyond the banks of the Yangtzŭ? The traveller who descends from Ta-t'an-kuan-yao to Wa-wu will see the obstacle staring him in the face, in the form of a very steep mountain ridge 8000 feet above the river and about 10,000 above the sea.*

A few miles below Wa-wu is a village named P'ei-sha which is indicated on European maps. Probably the Jesuit surveyors paid it a visit; but it seems certain that they drew the course of the river from that point to P'ing-shan Hsien by mere guess-work, and very erroneously.

We crossed the Yangtzŭ, quitting Ssŭ-ch'uan and entering Yünnan on the 18th of September. The river is here 490 feet broad at the narrowest part, and evidently of great depth, running between sandy banks with a speed estimated at six or seven knots in mid-channel. There were no shoals or sandbanks to obstruct its course, and navigation from Meng-ku, 30 or 40 miles higher up, is said to be safe and easy, though very little advantage is taken of it. We saw no vessel except the small and crazy punt in which we crossed. Half a day's journey north, we were told, all boat passage is barred by a succession of cataracts† far more dangerous than any similar obstruction on the Lower Yangtzŭ.

It was our intention to follow a track which keeps along the right bank; but we were told that it was next to impracticable at all seasons, and was now submerged. There was nothing for it therefore but to climb again into the mountains. A mile or more up the slope we entered Ch'iao-chia T'ing, a small, loosely built, and impoverished town, purporting to be celebrated throughout China for its pomegranates, which are grown on the fertile tract called Mi-liang-pa, beneath and south of the town. Here we had to make new acquaintances and obtain,

* The theory of the sub-aërial deposit of *loess*, which Mr. Baber here briefly illustrates, has been worked out by its originator, Baron F. v. Richthofen, with extraordinary elaboration and skill, in his great work 'China,' vol. i.—[H. Y.]

† From Wa-wu to Huang-kuo-shu the river falls, roughly, about six feet per mile; from Huang-kuo-shu to P'ing-shan, about three feet; from P'ing-shan to Chung-ching, more approximately, nineteen inches, and in its lower course less than six inches. From Bat'ang, on the Tibetan border, to Wa-wu its fall is not less than eight feet per mile.

For the difference between the river levels at P'ing-shan and Chung-ching I have computed three results (A) from the barometrical record in Captain Blakiston's book, and three others (B) from a similar record kept by myself when attached to Mr. Grosvenor's

if possible, a fresh conductor. The magistrate of the place, a native of Hankow, was much interested to hear that the foreign settlement is flourishing. The military official is a relative of the Prefect of Tientsin who was punished for complicity in the massacre of 1870. Notwithstanding such advantages, they exhibited the usual dense Chinese ignorance; the military gentleman, for instance, being anxious to know whether the *Duke* of England is also the ruler of France. They informed me that a Lolo foray was expected, and that I had better take the high road, by Tung-ch'uan and Chao-tung; but this I declined to do, wishing to see more of the Gold River. For their objection that there was no road through the mountains I was prepared, having with the assistance of a peddler compiled a list of stages. The officials examined this document with close attention, and after consultation declared that no such line of route existed; which is not surprising, for I afterwards discovered that most of the places were imaginary. They promised, however, to furnish a guide who would conduct us to the bank of the Niu-lan river, but on starting next morning no such functionary put in appearance.

As seen from Ch'iao-chia the ascent looks short and gradual, but having surveyed it leisurely from the heights on the other bank we knew that a whole day's climb was to be expected; and in effect the steep zigzag required eight hours to surmount, including frequent rests. After having ascended a little more than 7000 feet we stood on the top of the pass, expecting to see the plateau of Northern Yŭnnan stretching before us. No such easy fortune awaited us; the highest point of the pass is a small flat ending abruptly on the east in a precipice some 25 degrees out of the perpendicular, and 1500 feet deep, which again terminates in an undercut limestone bluff, the wall of an encased torrent running in a contrary direction to that of the Yangtzŭ. The further side of this chasm is a broken plateau, partly cultivated,

mission. The three determinations in both cases are derived from the several morning, midday, and evening pressures. (C) and (D) are obtained from a comparison of the *data* in those two records with the mean pressure at Chung-ching for the corresponding periods, registered by myself during the last three years, and duly corrected.

A.	B.	Means.
427 feet.	363 feet.	395 feet.
402 „	384 „	393 „
415 „	373 „	394 „
C.	D.	
378 „	354 „	366 „
416 „	354 „	385 „
437 „	318 „	377 „
		385 „

For the level of the Yangtzŭ at Chung-ching I have obtained 630 feet, a determination which cannot be very wide of the truth, as it is the *résumé* of some four thousand readings for pressure (with Kew corrections) and temperature.

but a few miles southward the surface splits into a wild region of bare crags and gullies.

Our company lodged for the night in a hut the door of which was the only adit for light and exit for the smoke of a fire of dwarf bamboos. The place—or rather a walled hamlet on a promontory close at hand—is called Ai-chuo ("precipice-foot") and is appropriately named. The narrow path, a mere step from one precipice to another, is imminently perilous. At one point called T'an-pêng-tzŭ ("charcoal-shed") it crosses a kind of shoot down which stones and masses of earth descend with very impressive velocity, dislodged from the heights above by wind, or rain, or browsing goats. We saw nothing more formidable than fragments the size of paving-stones come down crashing along with leaps of 100 feet into the gulf below. At this spot the path, which for 50 yards is a foot-wide track rammed with the back of a hoe in the loose slope of earth launched from above, is of course in continuous process of being carried away. There is probably no danger for an unencumbered passenger who can run lightly across, and moreover the approach of the cannonading stones can be heard several seconds before they reach the track; nevertheless our heavily weighted coolies were glad to gain the safe side. In winter an additional danger is caused by falling masses of snow for which reason a man is stationed at the spot to warn travellers.

A little further on we were shown a less abrupt slope down which, on the day before our arrival, a native had rolled some 150 feet, bringing up fortunately in a clump of shrubbery. The poor fellow had superfluously increased the depth of his descent by beginning it from the branches of a tree out of which he fell. Being very thickly clothed he broke no bones, but his face was terribly damaged. When we arrived he was beginning to recover, after an insensibility of fourteen hours.

We were surprised to be overtaken, at Ai-chuo, by the military officer of Ch'iao-chia, who, anxious, as he said, for my safety, had thought it better to come and escort me himself. Strangely enough, almost as if to prove the danger of the track, his servant had fallen over the edge, but in one of the least precipitous places. Although he had only gone down about thirty feet, in two bounds, he seemed seriously hurt and had to be left behind in charge of the cottagers.

The stream which has excavated the floor of this ravine probably enters the Tung-ch'uan river somewhere near its mouth (see Garnier's map). Various ways in which a torrent wears out hard limestone may here be studied from abundant examples. High upright bluffs—there is a splendid instance about three miles above Fa-ni-wo, closing the avenue in that direction; solitary towers and pinnacles left standing in the middle of the ravine, and natural bridges, are all met with. At Fa-ni-wo the track crosses the torrent by a broad natural viaduct; in

other words, the torrent disappears into a cavern from which, after a subterranean passage of several hundred feet, it reissues.* The tunnel was only opened in 1859; before which date the now perforated *bund* of rock was the dam of a lake. The water is said to have burst through underground suddenly, leaving a large expanse of its bed, now a cluster of paddy-fields, high and dry. *Fa-ni-wo* means, and is, a "mud-nest."

From that village to Wei-ku, on the bank of the Niu-lan river, we journeyed for three days over a range the highest pass of which we crossed at an altitude of about 9000 feet. The road is not difficult, unless in such rainy weather as we plodded through. Grassy plateaus well adapted for pasture and wooded glens not too steep for cultivation support a sparse population which lives, in a large degree, on maize and potatoes. Maize keeps for a year, I was told, without becoming mouldy, and potatoes last about half as long. This season, however, the maize had failed, but the natives laughed at the idea of famine since they can procure grain for next to nothing from the lower country. Food is always abundant; the great difficulty is to obtain clothes, money being very scarce. Although to a passing view the people seem plunged in the deepest poverty, they are probably far better off than the famine-threatened millions of Northern China.

From the dangerously steep descent to Wei-ku a grand view is obtained of the Niu-lan gorges—much grander indeed than from the narrow approaches to Chiang-ti where the same river was crossed by the French expedition, and more lately by Mr. Grosvenor. Little idea can be given by mere description of these stupendous gullies. A series of bluffs, height above height, inaccessibly abrupt, rise on both banks to an average of at least 4000 feet above the river, and many peaks reach a much greater altitude. The confined stream is from sixty to a hundred yards broad, with a velocity too great to allow of fair estimate. Speaking roughly, its level must fall some 1200 feet in the twenty miles from Chiang-ti to Wei-ku and has still to fall about 1000 feet before the Yangtzŭ is reached.

Wei-ku pretends to be a market village, but if the residence of a barber be accepted as a criterion it cannot claim the style. The barber is itinerant. The tax-gatherer, on the other hand, is a confirmed resident, collecting a few cash as Likin on the miserable traffic in sugar from Mi-liang-pa. The jurisdiction of Ch'iao-chia T'ing terminates at this point. We crossed the Niu-lan in a ferry-boat sixteen years old, up to our ankles in water, half the crew of four being employed in baling, and after a zigzag climb of 3600 feet found ourselves on the rim of the Chao-t'ung plateau at the hamlet of Shui-kou.

* On the constant occurrence of such phenomena in South-West China, see an interesting extract of a letter from the late Lieutenant Francis Garnier, in the "Introductory Essay" prefixed to Captain Gill's 'River of Golden Sand,' p. [60].—[H. Y.]

The copper for which Yünnan is famous is mined almost exclusively in this part of the province, that is to say from Hsün-tien Chou northwards to the Ssŭ-ch'uan frontier, and from the Gold River eastwards to the border of Kueichou, or a little beyond. The most productive centre is reputed to be in the neighbourhood of Tung-ch'uan. In the low hills immediately south of that city the metal occurs in a pure state, though generally in masses too large to be capable of profitable exploitation. Silver is another valuable product of the same region; the richest mines in the whole Empire, if native opinion may be accepted, are situated close to Lo-ma-ch'ang, a village three or four miles east of Shui-kou. In general the richest fields of both metals lie near the Gold River. No doubt the Lolo country, intervening between this region and the similar metalliferous district of Chien-ch'ang, contains the same resources. The disorders, robberies, jealousies, peculations, and prejudices, which repress mining industry throughout China attain their culmination in this part of Yünnan. Before the mines can be adequately worked Yünnan must be peopled, the Lolos must be fairly treated, roads must be constructed, the facilities offered for navigation by the Upper Yangtzŭ must be improved:—in short, China must be civilised. A thousand years would be too short a period to allow of such a consummation unless some force from without should accelerate the impulse. Perhaps the best hope for the improvement of this region is that the management of the mines may be withdrawn from Provincial control and worked directly under Imperial authority by some such mixed organisation as that which at present regulates the collection of the maritime customs.

There is a good deal of cultivation on these downs in the neighbourhood of Lu-tien and T'ao-yuan and round Chao-t'ung Fu, but the greater part is untilled. At Shui-kou half my company of coolies, alarmed by the widespread apprehension of a Lolo invasion, broke into rank mutiny and made for the Chao-t'ung road; but we had little difficulty in replacing them and rather gained by their desertion, which taught us how to economise carriage. After traversing ten miles of unproductive slopes we descried, near Hui-lu-ch'i, the surprising and pleasant novelty of a *cartroad*, along an open vale grown with maize and buckwheat, and bordered by the red-leaved lacquer-tree, the trunk of which is seamed with black tiger-stripes, the scars of incisions through which the lacquer has been drawn. Farm-houses were now numerous, and many a rude cart built exclusively of wood without a particle of iron was laid up in ordinary at their doors. Ku-chai, where we were glad to find rice, wheat-flour, and a plentiful provision of oil, is the first village worthy of the name which we had seen since leaving Ch'iao-chia. We travelled twenty miles or more along this fortunate vale between low ranges which retain a few vestiges of forest. The pasture-land supports large flocks of sheep, and cattle of a dwarfed race.

A cow is worth about 16*s.*, and a sheep about 4*s.* A pony suitable for plough-work fetches 40*s.*

The Chao-t'ung plateau should rather be regarded as a basin; its waters either disappear into the ground or converge by circuitous channels into the Ta-kuan river. A high rim prevents their entering the Niu-lan or (directly) the Yangtzŭ; a fact which seems to show that the gorges in which those rivers run have been split open by upheaval. We ascended this rim as we quitted the vale, and at Pai-fa-ch'i, a hamlet which we reached on the 30th, we had risen to a height of nearly 9000 feet above sea. There are poorer communities in the world than that of Pai-fa-ch'i, but it may serve as a specimen. The hamlet is composed of six huts, including the custom-house, all built of wattle and dab, the latter being cow-dung, since the local mud will not stick. The largest hut measures 24 feet by 10; to secure it against the fierce winds which sweep over the downs, its walls are propped on the outside with poles. A rude plough, two hoes, a flail, an axe, three buckets, a tub, a table two feet high, two stools six inches high, and a comfortable looking wicker bed strewn with hay, form the inventory of the furniture. The goodman is blind, one side of the housewife's face is black, and the child has a stiff knee. The six huts lodge forty people. To build a hut costs 13*s.*; a year's rent for the same is 3*s.* 4*d.*, but nobody who can afford to be absent stays here in the winter. The custom-house is also of wicker and cow-dung. The staff of officers consists of a commissioner and four tide-waiters—an eighth of the population. The office furniture is a bed and a hole in the ground, which latter the Commissioner supplies at his own expense with a fire of oak charcoal. Affable as his kind generally are in matters unconnected with business, he invited us to eat our breakfast in this apartment, but as there was not space to stand upright in we preferred the more capacious hut next door. He collects what are called "fourfooted dues"—an *ad valorem* levy on cattle, sheep, ponies, and pigs—and annually returns a total of nine pounds sterling to his superiors, besides supporting himself and under-strappers on the receipts.

Here we were informed that near Lo-ma-ch'ang more than forty silver mines are intermittently worked; that the most productive, called Shih-tzŭ-nao ("Lion-skull") yields eight ounces of silver for every pound of ore; that the rock is exceedingly hard, and that the miners keep large fires burning for ten days together in order to soften it. That the workmen gain little profit, but are enabled to live somewhat more luxuriously than farm-labourers. That before the Mohammedan troubles the mining inspector, resident at Lu-tien, made Tls. 50 (15*l.*) a day by his appointment, but that at present he makes nothing. That in consequence of disorders and maladministration very little work is now conducted, and that the surrounding country is more impoverished than ever.

A few miles beyond Pai-fa-ch'i we reached the point where the track attains its highest level, viz. 9700 feet. A venerable but blasted pine, the only tree within sight, marks the position. The downs are here covered with a dense growth of dwarf bamboo a foot or more high. As we turned a knoll, one of those discoveries which so seldom fall to the fortune of a modern tourist flashed upon me. About twenty miles distant to the north-west, in a cloudless sky, rose a stupendous boss, the culminating point, and the terminal, of a snowy ridge some fifteen miles long. The height of the ridge can only be estimated, as I possessed no means of measuring low angles conveniently. An approximation may however be easily made since the snow lies low upon it during the hottest season. Captain Gill found the snow-line in Eastern Tibet at about 17,000 in lat. 30°; here our latitude is 28°, and we must allow at least a thousand feet for the snow-covered part; 18,000 feet seems therefore the lowest permissible estimate. The predominating boss, which resembles a cap of liberty, rises probably 2000 feet higher. The summit falls to the Yangtzŭ in a series of terraces, which from below appear like parallel ridges, and abuts on the river with a precipice or precipices—which must be 8000 feet above its waters. The undulations of the plateau prevented a fair sight of the gorges beneath, and a turn in the river shut them from view when we descended to its bank. The next visitor, it is to be hoped, will *do* the region more completely. I was standing too near those overwhelming heights and depths to be able to judge calmly of their proportions—physically too near the gorges, and mentally too close to the liberty-cap, although, as I have said, it was some twenty miles away. Later and mature reflection has brought little result beyond a violent desire to go there again.

Being in Lolo-land the mountain is of course inaccessible to the Chinese; but it is a conspicuous object to the natives of the Yung-shan district, who call it "T'ai-yang Ch'iao"—the "Sun-bridge"—surely a magnificent name, and not inappropriate; the setting sun traverses the crown of that portentous causeway.

The mountain-ranges of Ssŭ-ch'uan run, with very little exception, in a direction varying from N.E. to N.N.E., and the Sun-bridge abides by the rule. It seemed therefore almost certain that the Gold River must follow this same general course from Ch'iao-chia to P'ing-shan, and that the elegant northward meander with the graceful turn eastwise provided for it by cartographers is a bit of freehand drawing. This surmise turned out to be correct. The Jesuit surveyors, it is probable, did not visit the stretch between Ch'iao-chia and Fu-kuan-t'sun, but trusted to such information as was obtainable in the neighbouring towns; in their time both banks were in Lolo territory, and indeed they were more concerned with the position of cities than with the minute delineation of rivers and ridges.

Continuing our journey we began to find that the Chao-t'ung plateau

here breaks up into a number of parallel ranges enclosing deep and narrow ravines. At the end of two short marches a sudden turn brought us into the grassy hollow of Hua-ku Lake,—lake being in this instance a euphemism for marsh. Thousands of sheep are here bred for the sake of their wool, which is manufactured into Lolo felt. We bought a sheep for 2*s*., returning the skin to the shepherds. The animals are said to suffer greatly from foot-disease, caused by the dampness of the climate. Rain had here fallen for forty days, with three days intermission, and came on again towards evening with a wild wind. It needs not to describe the misery of a night spent on a bed of hay with a pigsty beside it, a sheepfold next door, and a pair of cats caracoling and romping about the place in the hope perhaps of keeping themselves warm. The cold blast whistled through the cow-dung and wattle, scarcely allowing our bamboo fire even to smoulder. Growing reckless towards morning we woke up the housewife and desired her to turn the pigs out of doors and to take the cats into bed with her; for the interstices of the wattle, though close enough to exclude pigs, allowed free admission to cats. She acceded to this exorbitant request with apologies instead of murmurs, and about noon next day we parted on the best of terms. Here we began a continuous descent, but delayed by the rain, did not reach the Yangtzŭ bank at Yang-liu-shu until the 4th, after two days' downhill, a horizontal distance of eight miles, and a vertical one of 8000 feet. During the first day we passed through the most impressive scenery of Western Ssŭ-ch'uan, but the deep gorges bounded on the further side by the immensities of the "Sun-bridge" must be described by the next traveller; all was invisible to us. Indeed the fog was so little translucent that we were several times brought to a standstill by the impossibility of seeing the path under our feet.

Miao-wa, half-way down, is a hamlet not more than 70 yards square, surrounded with a bastioned mud-wall 20 feet high. A little further on we passed on our right the small city of Yung-shan, high up on the slope. It is said that the geomancers who selected its situation weighed the soil of the neighbourhood bulk against bulk, and choosing that which showed the highest specific gravity, built the city upon it, as being likely to afford the most solid foundation. The weather had cleared, and we could now see here and there the precipitous sides of the "Sun-bridge" peering blackly through rents in the white curtain of mist. Now and again we could just descry the summit, but its dazzling fields looked more like gold than snow, and from our low level the irregular edges of the terraces were projected like peaks upon it. In the north-west, beneath a patch of lighted sky, a long jagged crest sharp and clear as a new cut saw, and not very different in colour, showed the continuation of the range towards and beyond Lui-po-t'ing. From such a position the whole system seemed a wilderness of peaks;

but when we afterwards gained a higher level it became evident that the tendency is to form plateaus rather than pinnacles.

As we were plunging down the steepest of gorge-roads among cliffs and cascades we met General Chung, the commandant charged with the protection of the district against Lolo invasion. The old gentleman, who was on his way to Yung-shan, greeted me very kindly by dismounting, taking off his flapping straw hat, and shaking hands. During the T'aiping wars, he said, he had made friends with many foreigners; and meeting me suddenly in this wild region reminded him of those stirring times. Hearing of my approach he had left instructions at his quarters of Mi-t'ien-pa to make me comfortable. I think the veteran was unfeignedly glad to see me.

Soon we struck the bank of the Gold River near the hamlet of Yang-liu-shu, in lat. 27° 50′, where it issues from the mouth of a narrow defile, the height, breadth, and depth of which could perhaps be more easily measured than described. Until Her Majesty's Foreign Office supplies its servants in Western Ssŭ-ch'uan with delicate scientific instruments, or allows them to write reports in blank verse, little justice will be done to the Sun-bridge and its gorges, unless some Humboldt come this way. The stream, now a reddish-yellow mud-colour, runs in rock-strewn whirls and races which snub any question about its navigability. Yang-liu-shu and its neighbourhood is much favoured by Lolo invaders as a point for crossing into Chinese territory. Many an anecdote was told us about their inroads. They were driven across the river in the reign of Yungchêng—a hundred and fifty years ago—and up to the present time the Chinese authorities have contented themselves with maintaining that line, though in a very incompetent manner. General Chung has only 300 soldiers to guard 60 miles of frontier. When the Black-bones project a foray they send heralds several months beforehand to proclaim their intention, and the Chinese, knowing that the severest reprisals would follow any ill-treatment of these emissaries, allow them to return, accept their warning, and retire to a safe distance or assemble in a fortified position. The invaders cross the river at unwatched places in boats built of thin plank (more probably coracles such as may be seen on the T'ung river,) capable of floating six or seven men, and so light as to be easily carried by one. Early winter is the season they generally affect for their forays. They do not kill unresisting people provided a nominal ransom be paid or promised; but vigorous youths, young women, cattle, and salt, are unsparingly carried away. If resistance be offered they destroy crops. Their most trusted weapon, the spear, is a twenty-four foot pole of Ch'ing-kang wood—a kind of oak—headed with a spike four or five inches long. They have no firearms, but commonly use crossbows. The country people seldom make any resistance. Captives who have been carried off may be ransomed, but the price is generally too high. The goodman of my lodging

outside Miao-wa has seven relatives now in captivity, and in twelve years his cottage has been nine times burnt out. A woman whom we met had been delivered from bondage at what seems the moderate valuation of sixteen taels—say 5*l.*—but such a sum, I was told, is difficult to raise. Great numbers of Chinese, for the most part slaves, are to be found in the Lolo country; those born there, or captured young, and who speak the language, are very well treated; many even do not care to return; but when I asked three or four refugees what they had found to complain of, they replied with derisive laughter—"They make us shepherds and woodcutters and only give us one buckwheat cake a day."

Seeing therefore that the natives live almost next door to slave-hunters, it is not surprising to find all the farm-houses fortified. Here indeed, every Chinaman's house is, literally, his castle; generally a high wall on four sides with a bastion at opposite angles, and sometimes a donjon tower three stories high in the interior; the whole built of mud, and perhaps girdled with a thick cactus-hedge. Additional buildings being often required, fresh works are appended to the original defences, so that in course of time a very picturesque confusion of brown towers and irregular walls results. The interior of such holds is less attractive, being filthy beyond expression.

Persons unacquainted, or superficially acquainted, or one-sidedly acquainted, with the Chinese *régime* will ask how it can be that this paternal government spends ridiculous millions in the recovery of Kashgaria and Kuldja, and leaves thousands of its nationals, within the bounds of its patrimonial eighteen provinces, in a condition or an imminent possibility of arrant slavery. It would be hopeless to think of contradicting such an argument by the authority of the sparse and ignorant witnesses I have been able to interrogate. But fortunately for the interests of truth and credibility I can adduce the evidence of a European, who had the ill-luck to be overtaken by a Lolo foray in the country between Yung-shan and Takuan. It will be observed that he regards the question from a Chinese point of view. As an educated Frenchman, long resident in Western China, he may be considered capable of judgment, and a devoted missionary will not be refused the privilege of credence. For that matter, the mixture of pathos, humour, and piety, which composes his narrative, is luminous with ingenuous veracity.

"In the beginning of 1860 I intended to make an excursion into the country of the I-jên, not only with the object of promoting the conversion of those tribes, but to obtain the release of several Christians who had been carried into captivity. Unfortunately I had laid my plans without consulting the Mantzŭ. The season in which those brigands commit their ravages being already well advanced, we hoped to keep clear of

them, but as will be seen in the sequel our expectation was disappointed. The Mantzŭ and the I-jên are one and the same people; they treat one another as brothers, and indeed are brothers. The only difference is that the I-jên live in submission to the Chinese Government, paying taxes and allowing the officials to visit them, but at the same time retaining complete authority over their own people. The Mantzŭ, on the contrary, have never been reduced to subjection; too feeble to oppose the Imperial forces they have chosen to abandon their country rather than endure a foreign yoke and have taken refuge in the mountains called Liang-shan, which form a considerable plateau, protected by inaccessible heights, between the provinces of Ssŭ-ch'uan, Yünnan, and Kueichou.

"When I started on the 2nd of January I had heard nothing of a Mantzŭ incursion, but on the way, news came of the inroad of a body numbering 3000. It was near noon and a few miles more would have taken us out of danger, ... when on a sudden three of the bandits ran out of a pine-forest towards us and cut off our retreat. I at once gave the alarm and cried, "Sauve qui peut" at the top of my voice, but alas it was too late. One of our party who was on ahead managed to hide himself in the underwood and was lucky enough to escape discovery; the rest of us, three in number, took to flight; two of our enemies stopped to ransack my bundle which had been abandoned to them, while the third followed us up; but the yells of the whole band, which was approaching, took away all thought and power of resistance. My servant, the first to be overtaken, received six thrusts of a spear, and after being stripped of all his clothes was left for dead. Meanwhile I ran with all my might, in company with the man who remained, and already began to have hopes of escaping, when we met another band waiting for us in the way. Seeing them come on, ready to run us through with their spears, I called out that we would surrender. Eight or ten Mantzŭ throwing down their weapons, immediately rushed upon me, and literally raised me off my legs clear of the ground; one pulled off my shoes and socks, another my coat, shirt, &c., all working simultaneously, so that the business was soon over. I felt giddy and dazed during the operation, especially as there was no knowing how it would end, but I remember that I repeated without cessation an invocation to Jesus and Mary.

"Having torn up my clothes, and given every man his share, they set off again, taking me with them. Being among the first to arrive in the plain, we made a short halt to eat part of our booty, pigs, fowls, ducks, &c. Here it is every one for himself; those who had looted anything partook of the banquet; their less fortunate comrades watched them at work. As for myself, squatting under an old wall, I did my best to give the wind as little hold as possible. When any of them came near me I said in a respectful tone—'Master, it is very cold; lend me a garment no matter what, and I will return it.' Many of them laughed, the better made no reply, some asked if I would like a flogging to warm my

back; but one, more compassionate than the rest, gave me a little bit of a cloak, which although too short was of the very greatest service. May the Lord recompense him for that good action.

"By the time the brigands had devoured the few pigs they had killed, the whole band had assembled, composed of from 1200 to 1500 men. It was now getting late, and every one looked for quarters; a good many camped out on the open plain, and the rest found lodging in buildings which the Chinese had deserted on their approach. The troop to which I belonged retired to a good-sized house which sheltered us from the rain, snow, and wind, most luckily for me, for I was not in a state to brave the open air in such weather. Our installation was effected without much ceremony, and I had to wait outside until everybody was suited. The day's chase having been pretty successful, it was merry in camp that night though without much charge for cooking. Nothing can well be simpler or speedier than the manner in which these people prepare their food. Having lighted a great fire with our host's benches, tables, and beds, they threw into an iron pan four or five pigs, large and small, turned them two or three times with a stick, and the beasts were considered to be cooked, although the hair was hardly half singed. The head cook then performed his office and every one came up for a piece according to his rank. I have never been able to understand how those rude gullets could so easily swallow the bristles of the animals. To eat raw flesh is nothing out of the way for people of their condition; but not to remove the hair seems a novelty. By way of dessert they brought in an ox, which was prepared in the same way, hair, hide, and all. Though I had eaten nothing that day, the idea of claiming a share of the banquet did not occur to me; indeed the thought of being offered any was alarming, for it must be remarked that one is obliged to eat all they offer, under pain of incurring their indignation. If any one shows signs of disgust he will have to swallow the filth which they will at once add to his ration, and will get beaten into the bargain. I was beginning to think myself safe, when the man who had given me the cloak came up with about a pound of flesh, all red and reeking with the natural heat of the animal. It may be imagined how embarrassed I was, especially when I saw that the man was watching how I should get through it! My condition was quite wretched enough without making it worse by betraying any repugnance, so I made the best of it by biting off four mouthfuls, which took many a turn in my mouth before passing into my stomach. But when he happened to look the other way I seized the opportunity to hide the morsel, and for want of a better place put it between my feet. He returned a moment after and asked me if I had eaten it all, and when I replied 'You have given me a great deal too much; I will finish it to-morrow,' the good fellow picked it up from where I pointed to it with my finger, and ate it very comfortably, although it was quite cold. This induced me to believe that he had deprived

himself of it for my sake. From that time forward we were very good friends, and I have no doubt that he did much subsequently to set me at liberty.

"After supper I was chained up, but contrary to general usage my hands and feet were left free, and I managed to get a little sleep. The forenoon of the following day was a trying time. My friend and benefactor had gone to pillage in the neighbourhood. Besides going without breakfast and dinner I had enough to endure, and they would hardly allow me to approach the fire. Some would pull my hair, or give me a kick, or a box on the ear, or a blow with a pipe; others amused themselves by plucking my beard, this one pulling out the white hairs and that one the black, while a third, finding the operation tedious, brought a flaming brand and roasted my chin unmercifully. More than once I had a very close view of knife or spear, but there was always some helping hand to put aside the blow, or some tender heart to intercede. At last they sent me to turn the mill, and this was the end of my miseries and the beginning, I may almost say, of comfort. I had scarcely begun work when all the chiefs came to look on; some wondered at my white skin and others made sport of my awkwardness, but before I had ground many handfuls they all cried out together, 'That will do. Come and warm yourself!' It was quite time, for I was all stiff with cold, and could only walk slowly and with great difficulty, so that it was easy to see that I could not long endure such a life. The Mantzŭ accordingly offered to ransom me for 1000 ounces of silver; a little later they reduced the demand to 50 ounces, with 1600 lbs. of salt, and twenty pieces of cloth. 'Well,' I said, 'you do not require overmuch, but how can I raise money here, or find cloth, or borrow salt? You have taken everything I had with me; what can I offer you now I have nothing left?' My arguments were so clear and just, even in the eyes of these brigands, that nothing more was said about a ransom.

"'Do you know who we are?' one of the chiefs then asked me. The question seemed a difficult one to answer, since I did not know what he was driving at. I got out of it with a bit of Gascon slyness, which could not however have deceived anybody, for the chief immediately added 'Well, well! you are frightened to-day. We know you Chinese call us thieves and robbers, but it is you who are the robbers. All this country once belonged to our fathers; they had always been its masters and peaceable possessors until the Chinese came and unjustly expelled them. We were the weaker, and had to yield; our country was neither sold nor given away; we come to collect the rent. If you retire to your own territory you will find that we shall not follow you.' 'But, at any rate,' I replied, 'you need not kill the sick and feeble.' 'If we did not,' said he, 'who do you suppose would follow us? They would all pretend to be sick, and we should never make a single capture.' Unfortunately for the Chinese Government, this is true. It is admitted that the first emperors

of the present dynasty gained possession of Yünnan by the violent expulsion of the aborigines; but it remains to be known whether the latter gave occasion to severe repression by their brigandage.

"During the forty-eight hours, more or less, which I spent with the Mantzŭ, I noticed a fact which has singularly surprised me. I had always supposed them to be an exceedingly corrupt people, for such is the reputation which the Chinese have given them. I can nevertheless testify that with the exception of a few expressions, rather vulgar than indecent, I saw nothing in their manners at which even a Christian need blush. Of course this is no proof that these bandits are always so well conducted when they return to their mountains, but it shows at any rate that they can behave well when they choose, even in the midst of an incursion which is favourable to every abuse of power.

"I thus passed the afternoon of the 5th, and as my masters had shown me a certain kindness, I hoped to be better treated henceforward; but I was soon undeceived; one of my fellow slaves whispered in my ear during a moment when we were not watched, 'Things are going badly—they have resolved to kill you to-night after supper, or before starting to-morrow.' I thanked the man with a nod, for it was unsafe to talk much. Seeing no way of escaping death, I thought of preparing for it the best way I could. Two hours went by in this manner; night had fallen; several had finished supper, and some were still eating. I felt sure my last hour had arrived, especially when they came and took away the little cloak which covered my shoulders. In this extremity my good angel, who doubtless watched over me, inspired me with the idea of making what is here called the *Ch'iu-ch'ing*—the appeal to kindness—and this is how I acquitted myself of the ceremony. Our band was divided into five groups according to the number of rooms in the house; I went to each group and in the attitude of a suppliant exclaimed, 'I appeal to the goodness of your hearts!' The plan succeeded even beyond my expectations. The Mantzŭ, flattered to see me on my knees before them, granted me not only life but liberty as well, which I should never have dared to ask for. In fact, no instance is known of their ever having released a prisoner; it is 'March or die.' It happens now and then that at the moment of capture they dismiss some of those whom they have despoiled—an old woman, for instance, or a disabled man; but the encampment once entered there is no leaving it. This is not merely a general rule, but one which has no exception whatever. Blessed be the name of the Lord who for my sake softened the ferocity of these men! Death had no great terror for me, but the thought that my parents, my brother missionaries in China, and my friends in Europe, would remain in cruel uncertainty about my fate was excessively painful.

"I was beginning to breathe again and to feel the pleasure of life, and almost of liberty, when the man who had seemed all along to take an interest in me drew me apart and said, 'There are several bad people

among us who, notwithstanding their solemn promise, are quite capable of giving you a stab with a knife before starting to-morrow. You had better be off to-night.' 'Where can I go?' I replied; 'the mountain is full of your people, I am ignorant of the way, the night is dark, and I have neither clothes nor shoes; even supposing these difficulties overcome I should still die of hunger and cold. Good young man, make your mercy complete! Let me spend this night under your roof and I will start to-morrow at daybreak!' But it was in vain; I had to go. I cannot conceive why they wanted to get rid of me at such an hour. They must have had some other motive than the wish to put me beyond reach of danger.

"I had scarcely taken a dozen steps, however, when, feeling the utter impossibility of going further, I came back and said, 'Kill me if you like! It makes no difference whether I die indoors or out.'

"The bandits, generally little accessible to compassion, could not help saying that I was much to be pitied, and assigned me a corner of the house to sleep in, where by a stroke of luck I found a few handfuls of rice-straw to spread over me and retain as much warmth as possible. You would not believe how cold and long that night was! Next morning no one thought of hurting me. When the place was a little cleared they let me come near the fire. Seated on the ground, I saw with pleasure that the time for starting was drawing nigh, and while I was impatiently awaiting it, a wag of the party, thinking to divert his comrades at my expense, filled a pot with cold water and came and poured it over my back. This attention of his made everybody laugh heartily, myself excepted. The rascal was about to indulge me with a second shower-bath, but I did not give him time; I gained the door with all despatch, and fear made me find a remnant of strength in my legs when I saw the whole party join in the chase and pelt me with stones. I very soon perceived, however, that they only wished to hasten my flight, and did not really intend to catch me; nevertheless, for greater safety, I jumped into a rice-field, being pretty certain that they would not care to paddle after me through the slough. I purposely fell first on one side and then on the other, pretending not to be able to keep my legs, so great was my dread of being called back in earnest. At last I hid behind a hillock, and when the Mantzŭ lost sight of me they started, leaving large fires burning in the house.

"Sitting and half lying in the mud, it was long ere I ventured to budge. When all was quiet I risked a glance out of the corner of my eye, without lifting my head too far, and at length put my nose in the air and saw the last of the Mantzŭs disappearing over the ridge of the mountain. After making sure that I was really free and that not one of my enemies remained, I went back to the house, where I could at least warm myself at ease; but it was not prudent to make too long a stay. The owner would not fail before long to come out of the cave in

which, with his family, he had taken refuge; and it was to be feared that in the first moment of surprise, and not knowing me, he would make me pay very dearly for the havoc which the robbers had committed in his dwelling. As quickly as possible, therefore, I made myself a broad girdle and a little cloak of straw, and having come upon a basket which was not altogether unlike a hat, I filled it with straw, stuck it on my head the best way I could, and took joyously to the road, thinking much less of present difficulties than of the dangers which I had already encountered.

"In the evening I reached a small (Chinese) village, the inhabitants of which had only partly returned. I had great trouble in finding a lodging; nobody would take me in, because I had no money. I remember that I went from door to door saying the handsomest things in the most doleful tones, without any success. Some, while leaving me in the streets, would recommend me to be patient, remarking that times were bad and that, moreover, I was not the only unfortunate—with other truths of a similar nature. These were the most civil. Others would declare flatly that I was a thief, and that their houses were not meant for people like me. I saw the moment coming for me, not to sleep, but to die, in the street of that inhospitable village. My entreaties and my courage were alike exhausted when I heard some one calling me—'Old fellow! old fellow! come here!' It turned out to be one of those who had refused me shelter. The good man gave me supper and performed that night an act of charity which, to those who know what the heathen are, will seem incredible. There was only one blanket in his house, the others being hidden in the mountain for fear of the robbers. Well, my host had kept this solitary blanket for his own use, and yet he lent it me for the night without being asked, sleeping himself in his clothes on a bench beside a small fire which he relighted more than once without succeeding in getting warm. I am firmly persuaded that the Lord, in his mercy, will give that heathen the Faith, of which he already performs the Works, and I earnestly recommend his conversion, as well as that of his family, to your good prayers."

It may be affirmed with something like certainty that the above is the only paragraph of European literature which makes authentic mention of the Liang-shan Lolos. I need make no apology for extracting it from the 'Annales de la Propagation de la Foi' (latest edition, vol. xxxiv.), since while it illustrates and confirms the results of my inquiries about the redoubtable Black-bones, it gains interest and value from a knowledge, which the writer did not possess, of the large extent of territory occupied by them. The frontier, at almost any point of which Chinese may be hunted for in the manner recounted, has a length of more than 500 miles and lies wholly within China Proper.

It is pleasant to be able to add that although the excellent missionary

has since encountered dangers of a not less formidable kind, his prospect of martyrdom seems more distant than ever.

We kept along the bank as far as the village of Huang-kuo-shu, where, to cut off a wide bend in the river, we climbed 3000 feet up a mountain-spur to Ya-k'ou, a scattered hamlet of fortified cottages. A little further on we selected as our lodging a large farm-house, girt with walls and towers, the only occupants of which were two Lolo women; they told us, however, to make ourselves at home, saying that the master was away, but would doubtless be glad to receive us, and that they would send to inform him.

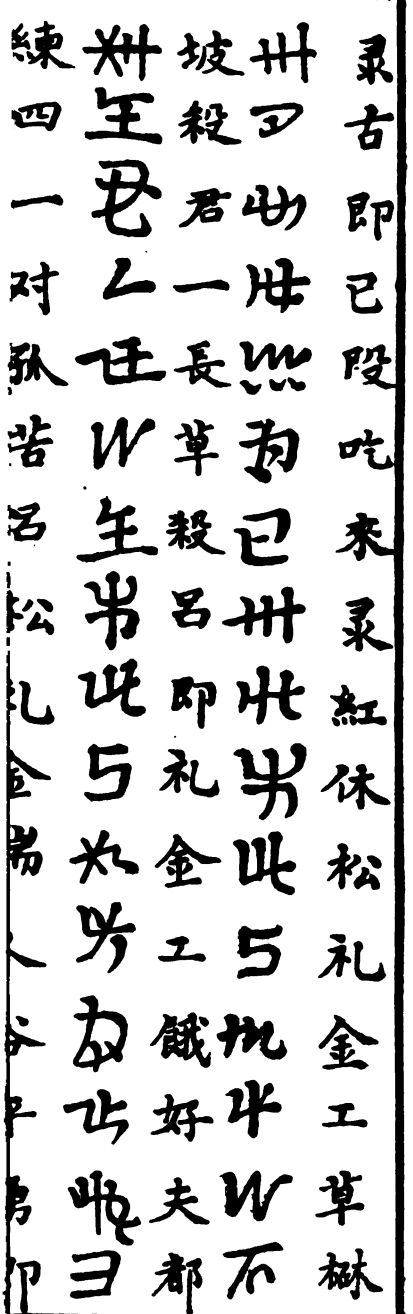
It was here that I made the most interesting discovery of the journey. The master did not return until next morning, but in the meantime we learnt that he was a Lolo of rank and that this part of the country on the right bank of the Gold River, over which his family once reigned, had submitted to the Chinese under his grandfather. He had received a Chinese education, and, except in the matter of intermarriage, had adopted Chinese forms, though still maintaining relations with the independent tribes on the opposite bank. The room in which I was installed measured some 25 feet by 14 feet, and one-third of the floor was covered to an average depth of about 18 inches with bundles of waste manuscript and printed papers. The Chinese make such collections with the purpose of solemnly burning them, from a pious respect for the art of writing. Now, while travelling along the border, I had been many times assured that the Lolos possess books, the power of deciphering which is confined to their priests, or medicine-men, or magicians, or whatever their correct style may be. The Chinese call them "*tuan-kung*," a word which is generally translated by the uncouth term "thaumaturgist."* I had made every effort to obtain one of their books, but without success. Lu, the Ché-po chief, promised to send me an exemplar, but although I have since corresponded with him no Black-bone classic has reached me. Here then at Ya-k'ou, the point where our route quitted the immediate frontier, an expiring hope prompted me to examine the mass of fugitive literature which encumbered the floor of my chamber. After a hasty dinner I summoned my native clerk and we began an exhaustive exploration of thousands of documents. The search was not so difficult as might appear, since the printed papers, mostly proclamations, placards, and hand-bills, formed three-fourths of the mass and were packed up separately from manuscripts. The Lolos do not possess the art of printing, and we had therefore only to examine the written documents. These were principally drafts of letters, rough accounts, and children's copy-books, the latter in great number. Not wishing our unhandsome

* This looks like the word *tuin*, which was applied by the Mongols (or properly by the Uighurs) to their lamas. See the references in 'Cathay and the Way Thither,' p. 241, note.—[H. Y.]

inquisitiveness to be made public, we had frequently to relax operations on account of interruptions, so that we did not complete our work until soon after midnight. We found nothing to our purpose in any of the packages; but under the last few, almost in the furthest corner, we discerned with gloating eyes the scrap of writing of which a facsimile is appended—a specimen of Lolo characters with the sound of each word, or syllable, approximately indicated in Chinese. (Plate II.)

It might have been expected that the Lolo writing would turn out to be some form of Pali. It shows, however, no relation to that system, but seems to take after the Chinese method. In any case the discovery possesses no small value and raises so many interesting questions that a little exultation may be pardoned. A new people may be discovered anywhere, a new language any day; but a new system of writing is a find of exceeding rarity. Many a rival galled the kibes of Columbus, but the achievement of Cadmus has been deemed so astonishing that his very existence is now denied!

I did not care to carry off the original—"convey" the wise it call—but yielding to a subterfuge which no casuistry can palliate, I made my clerk copy it on a superposed sheet of transparent paper and have since had it cut in wood. When the master returned next morning I asked him if he would allow me to keep the original; but, as we had foreseen, he refused, nor could we obtain from him any consistent explanation of the meaning of the document, although in all other respects he was profusely obliging and hospitable. It is necessary to recount the above discreditable details for the purpose of putting beyond doubt the authenticity of the document and of showing that it was not made to order. Hearing in the course of the forenoon that a lettered medicine-man from the opposite bank was in the village, I asked our host to send for him, which he at once did. The medicine-man, a tall and robust Lolo, with his horn concealed under the Ssŭ-ch'uan turban, appeared to have somewhat reluctantly accepted the invitation, and for a long time I could hardly elicit a word from him. The exhibition of weapons and instruments excited little emotion; but his curiosity was at last pricked by a Nautical Almanack which happened to lie open at a page of Lunar Distances. He carelessly indicated a line of figures and, speaking of course Chinese, asked what they meant. Now by the greatest luck in the world I remembered the Lolo word for *moon* since it is a remarkable word which exhibits the Welsh aspirated *l*; and furthermore, I had a rude acquaintance with the numerals; so that it was easy to reply in the medicine-man's own language "*Hlo-po t'su-ha-ni-fo*"—"Moon, a hundred and six." Whether the translation was correct, within a hundred degrees or so, was of small account; indeed it is quite possible that he may have understood me to say "a hundred and six moons"; but from that moment the ice was broken and communication became easy, mostly, however, to his



advantage, for he was so curious to learn all about the moon and the Greenwich Almanack that it was difficult to change the subject. At last I asked him to write me a few words in his own characters, and here is what he wrote, with the interpretation thereof:—

One		Horse	
Two		Ox	
Three		Sheep	
Four		Fowl	
Five		Dog	
Six		Pig	
Seven		Water	
Eight		Fire	
Nine		Red	
Ten		A-	
		Tchu	

The last two characters are the name of the writer. When he had got thus far a servant came in and delivered a message to him and to my host, which caused them to hurry out of the room with almost disorderly haste, and I never saw either of them again. Their flight was explained, a few minutes afterwards, by the arrival of three military officials from Mi-t'ien-pa, who came to receive me by General Chung's order. It is easy to understand that a Black-bone sorcerer would feel very unsafe in such society.

From Mi-t'ien-pa, which is a comfortable village a few miles down the slope, a direct and easy track leads over the mountain to Ching-ti, but wishing to see something more of the Sun-bridge and his satellites, we

preferred to make a detour by which we could travel in full view of them. The chart gives, probably, a fair general view of the system, but of course makes no pretension to minute accuracy. West of the Sun-bridge, and parallel with it, is a similar ridge, and further west again is yet another, of which we could make out little but its pearly snows. A long, narrow, and exceedingly deep glen runs straight in the direction of the third range, and no doubt brings down a large stream of water; but it was far too profound and obscure for us to descry its floor. A road leads through it into the heart of Lolodom, and I was told by the medicine-man that under proper sureties it may be travelled with safety. Few more desirable explorations could be projected than a journey up that alluring avenue.

Lung-t'ou—"Dragon's Head"—is the name of a line of precipices which terminate a high plateau further north whereon snow lies during eight months. On a subsequent journey I caught sight of this elevation from a point 60 miles to the north of it, at the door of a smithy a mile and a half west of Lu-lu-p'ing. From that distance little can be distinguished except that it has an irregular surface of large extent—perhaps a mean diameter of 15 miles—and cannot be much less than 12,000 feet above sea. The region which intervenes between the Sun-bridge and the Dragon's Head appears to rise in two, or possibly three terraces from the bank of the Gold River. On the 9th of October all these heights, except the terrace immediately beyond the river, were covered with snow, while we were travelling 5000 feet above sea in a mean temperature of about 60°.

The rest of the journey calls for little remark. We may almost be said to have discovered Lui-po T'ing, a city the position of which has always been a puzzle to map-makers in consequence of the erroneous course which they have assigned to the Gold River. We saw enough of that stream to satisfy us that it cannot be navigated, unless with frequent portages, further than a few miles above Hui-ch'i. At Hui-ch'i we forsook its bank and made directly for Fu-kuan-ts'un, a sub-magistracy which I had previously visited when attached to Mr. Grosvenor's Mission. The road crosses a country of no great abruptness, well wooded, not much cultivated, fairly well inhabited, and abounding in waterfalls. We made P'ing-shan Hsien on the 18th of October. One of my latest reminiscences of the Lolos is that of a lady coming down the road near Lan-mu-p'ing, whom I took at 60 yards' distance for a French sœur de charité, not reflecting how absurd it was to expect such a rencontre in Yünnan. Nevertheless the resemblance of costume was so close that I actually called a halt and awaited her approach; but when she drew near, the sight of a baby which she carried on her back, dispelled the illusion.

Several months after the above was written I was fortunate enough to secure, through the kind offices of the French missionaries, an original Lolo manuscript of eight pages, which had been obtained from a Lolo chief near Fu-lin. The sheets—numbered from 1 to 8 [Plates adjoining

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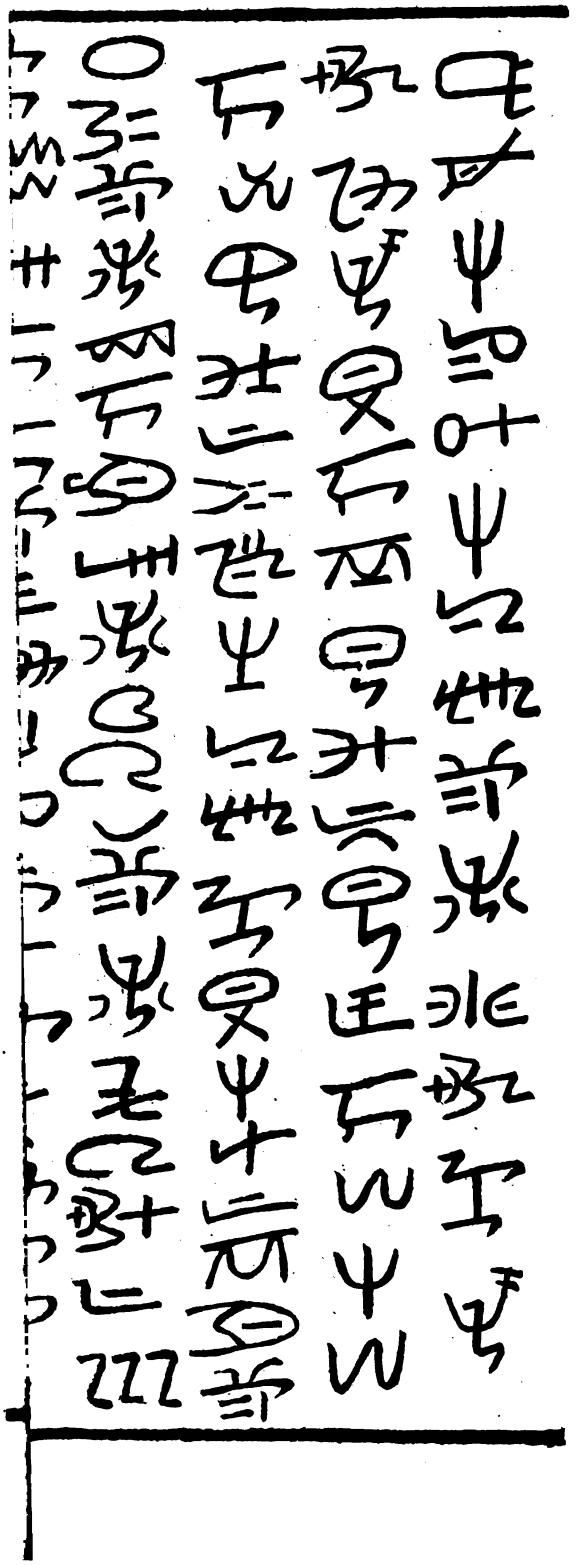

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1 to 8]—have been carefully copied from it, page for page and line for line. I am quite ignorant of the nature of the work, and am even unable to declare at which end it begins.

Ancient Stone Monuments.

The foregoing narrative will have failed altogether of its intention if it has not succeeded in hinting how great an interest—for the most part an interest in the unknown—attaches to exploration in Western Ssŭ-ch'uan. But the misfortune of the explorer is that he seldom knows where to look, and never knows how much he has missed. The purpose of this note is to indicate one special vein of research which promises a rich output.

A hundred yards or more distant from a country house near Ch'ung-ch'ing, which I have from time to time occupied, lies a mound which is possibly an ancient tumulus; but it has been so eaten into by paddy-fields and effaced by the erection of a modern tomb that its outline is not a prominent feature. Its few square yards of uncultivated sward make it a pleasant spot on which to sun oneself during the rare intervals in which Ssŭ-ch'uan weather combines mildness with sunshine, and it was on such an occasion that I one day detected a straight line faintly delineated on the surface of the turf. Very few moments elapsed before a little removal of soil with a pointed stick disclosed the presence of an oblong slab of sandstone, about seven feet by two and a half, which according to all precedent contained in the records of Aladdin and others should have been countersunk into the mouth of a subterranean cavity. And, sure enough, so it was, although there was no ringbolt by which to raise it. I had therefore to defer lifting it until assistance could be obtained; and since such operations are, in China, punishable by decapitation, or strangling at the least, several weeks passed before occasion served the purpose. When we at last succeeded, after expending much misapplied force and pretentious ingenuity, in raising the slab, we discovered that it was the lid of a rude sarcophagus containing nothing but wet mould, which may have drained in through ill-closed chinks, or have been deposited by previous desecrators. But in any case the sarcophagus lies too near the surface to warrant the inference that it has ever housed a corpse; it is more probably *a blind* to divert curiosity from the situation of the true coffin, which may be expected to repose in some more recondite part of the tumulus.

Nevertheless I was not at all depressed, for a valuable find had already been made. From beneath the head of the lid, which juts over at one end, the landlord of the house had, a few days before, picked out a polished stone axehead of serpentine. When first discovered the instrument was perfect, but the friends of the finder, ignorant of its character and surmising that it contained gold, attempted to break it open by

dashing it against a rock, and seriously mutilated its edges. The tough material offered, as a whole, so stout a resistance to the vandals, that it retains a very presentable and even elegant appearance, and now forms No. 1 of my cabinet of polished stone instruments found in Ssŭ-ch'uan.

That everything must have a beginning is one reason why the collection has not yet extended beyond No. 2, a specimen which owes its discovery to the habit of opium-smoking. In a street in Ch'ung-ch'ing my servant met a smoker scraping the opium-stains from his fingers with its chisel-like edge. The man let me have it for the equivalent of a shilling, and on being asked how he came by it said that he had found it, and another, in a stone coffin in a field near his house. This exemplar, though much dilapidated, is a good specimen of polished flint.

It is therefore undeniable that these objects are found in connection with coffins, though what the connection may be is not clear. The

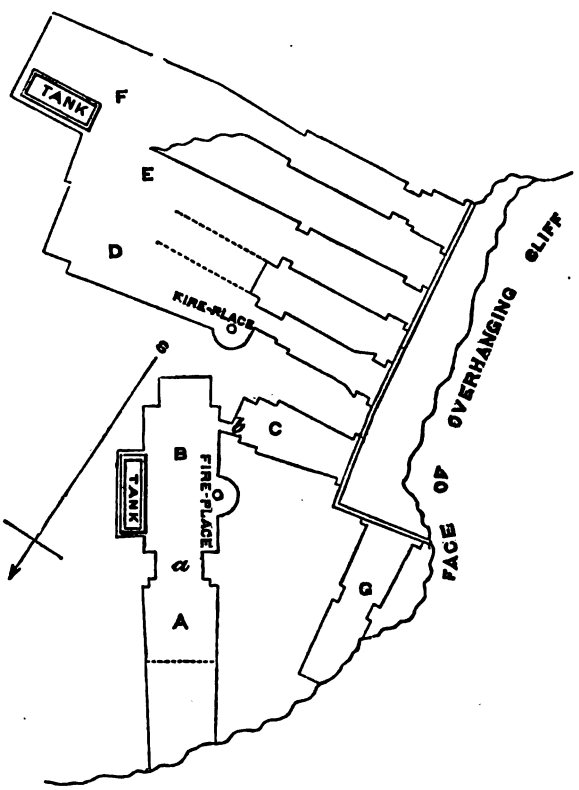

FIG. 6. Scale 16 feet to 1 inch.

natives call them "*hsieh*"—wedges—and conceive that their use was to fasten down the lids of sarcophagi in some unexplained manner. A more plausible supposition is that they were buried with the dead in

conformity with some traditional or superstitious rite; at any rate the theory is impossible that the people who hollowed out these ponderous monoliths worked with stone chisels, and left their tools inside.

It is curious to find in many a farm-house and roadside inn similar sandstone coffers in use as cisterns, though of unnecessary size for the purpose, and to be told that their origin is remote and unknown. However that may be, the explorer cannot help connecting such tanks and sarcophagi with another class of sandstone excavations of which there must exist thousands of shapely and imposing specimens. The first of these constructions—if a perforation can be called a construction—which I visited, is near Ch'ien-wei Hsien, on the Min. The exact locality is indicated on my chart of that river, and the plan (Fig. 6), made on the spot by careful measurement, will help to explain the following remarks.

The series of excavations shown on the plan can only be entered through A, which may be called the porch; the doorway *a*, if it were cleared of the sand which at present obstructs it, would be some 4½ feet high. The distance to which the roof of rock extends over the porch is shown by the dotted line, at which point there are three overlapping lintels. It should be borne in mind that all is part and parcel of the living rock. The uppermost lintel is plain, but on the face of the second is sculptured in relief a couchant animal (Fig. 7), possibly a horse,

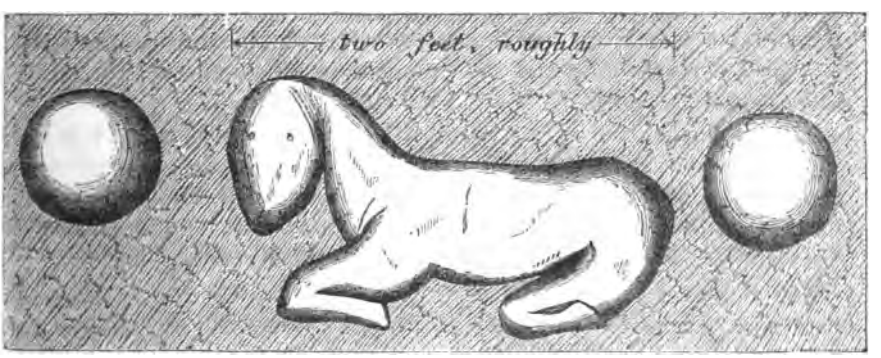

FIG. 7.

between two globes, the carving of which is very much defaced. The lintel immediately over the entrance bears the ornament shown in Fig. 8, also much worn down, although its outline is distinct; so far as its condition will admit of exact measurement, it is just an English foot long. Passing through the doorway I entered a chamber some 12 feet long and six feet high beneath the crown of the low arch into which the roof is carefully rounded. On the left is what appears at first sight to be a sarcophagus, but on clearing out the sand I found that it is hardly deep enough for purposes of burial. Still, it seems too deep to have been intended for a bed-place, and although its outer rim is a good deal broken

way in which the wall has been afterwards notched out shows that a second door was added after the completion of the excavation.

The persistent adherence of the architect to straight lines and sharp angles is very remarkable, notably at the inner entrance to chamber C, where so many corners seem quite unnecessary. Another noticeable feature of this complicated cave-system is the extreme difficulty of getting into it. The only entrance is by the neck of chamber C, through which, even in its present enlarged condition, a stout man could not pass. Moreover there is a step in the neck, and the step is undercut. A person in C, by simply pushing a large stone into the hole, could easily close the orifice beyond the power of anything but dynamite to open it from the side of B, and probably this was the intention of the device. But why communication between C and D should not have been effected by means of a doorway in the partition, instead of by clambering round the face of the rock, a transit, by the way, only practicable for grown-up people, is not so intelligible. It may fairly be assumed that C was not designed for habitation, since it is unprovided with doorposts; it was therefore merely a kind of entrance lobby. Perhaps this labyrinthine arrangement was a precaution against surprise. An enemy, or a robber, feeling his way by means of the handholes from C to D, would be helplessly at the mercy of a sentinel posted in G, and the same disposition admirably protects the mouths of the chambers from escalade from below.

Whatever may be the secret of these singular excavations, the key to the mystery lies in the entrance lobby C. The want of parallelism in its walls is exceptional, and it should be noticed that the obliquity of its northern wall causes the difficulty of access to G.

This particular cave contains no seats, but in others which I explored I found bed-places arranged so as to form low and very comfortable settees. The edge of the bedsteads, i.e. the corner which would bear against the back of the knees of a person sitting on them, is rounded —not merely smoothed away, but boldly cut into a liberal curve; while the rear part of the seat falls as it retreats, the whole appurtenance exactly resembling a soft divan with a luxurious spring cushion. This similarity is so striking that I almost unconsciously looked for the feet. Absurd as the hallucination may have been, its justification was undeniable, for the feet are there! The upholsterer has undercut the rock, leaving feet *in situ*.

Enough has been said to show that the excavators were no rude happy-go-lucky borers. A higher idea of their art—I use the word advisedly—is gathered from an examination of the façade. Standing on the ground outside, and fifteen feet or so below, the mouths of the parallel chambers, one sees that the rock has been cut away into a smooth face, leaving the overhanging cliff to act as eaves; and this must evidently have been done before the perforation of the chambers was begun. Several feet above the line of openings a curious ornament

as possible hit the bulls-eye of a corresponding handhole in the wall of chamber D. It was a pleasant excursion, though an infinitesimally short one, which thus landed me in the main compartment of the cavern.

A passage 12 feet long between walls furnished with projections running from floor to roof, the purpose of which arrangement is not at first apparent, leads past a second fire-place and crockery shelf into a large chamber some six feet high. Two chambers have here been broken into one, much of the partition wall still remaining, but it is not easy to decide, from a mere inspection of the breach, whether there has originally been a door between the two, or whether the neighbours communicated with one another by getting in and out of the windows, so to speak. There must however have been some opening, otherwise the smoke of their fire would have stifled the inmates of D. At any rate the chambers differ in plan, and each has its own passage differing in detail as regards the projections on the walls. Chamber E, again, is slightly longer than D, as a glance at the plan will show. Chamber F, runs much further back than the other two, and opens to the external air by a very long passage. Here again the partition is broken away. Chamber F contains a tank similar to the one first mentioned.

We have now visited five apartments, but there is still a sixth (G), somewhat higher in level, and only to be gained by a hazardous effort of squirming round the inside of the corner from C. When safely landed in it one observes that it commands the mouths of the four parallel chambers, and that its inner end, originally terminating in solid rock, has been broken through, probably during the process of cutting the modern high road which runs immediately below.

The purpose of the projections on the passage walls seems clear enough on the plan, but it is not so evident while one is scrambling about the interior. They can hardly be anything else than doorposts; if there be any doubt it is disposed of by the existence of holes through their edges for the insertion of strings to act as hinges or fastenings. But then the question occurs why should each of the three passages have had two doors, as appears from the plan? To this I reply by another question, why should there be any separate chambers at all, when it would have been so much easier roughly to hew out one large cavern than to take the minute and elaborate pains necessitated by so much subdivision? I imagine that the families who had their dwelling in the rock were respectable folk and loved privacy. By closing both doors each chamber with its passage would form two separate bedrooms. The space between the doors is about the right length for a comfortable bed, leaving room for the sleeper's clothes at one end, and it will be observed that in passage F, the space between the doors remains much the same length as in D and E, although its whole position lies several feet further inwards. Chamber D seems originally to have had only one door. The

uninjured show an even surface, retaining no marks of the tool; this is so noticeable that the flat faces do not look like sandstone, but appear almost as if they had undergone some hardening process. The wall-spaces are divided into compartments, some of which may have been

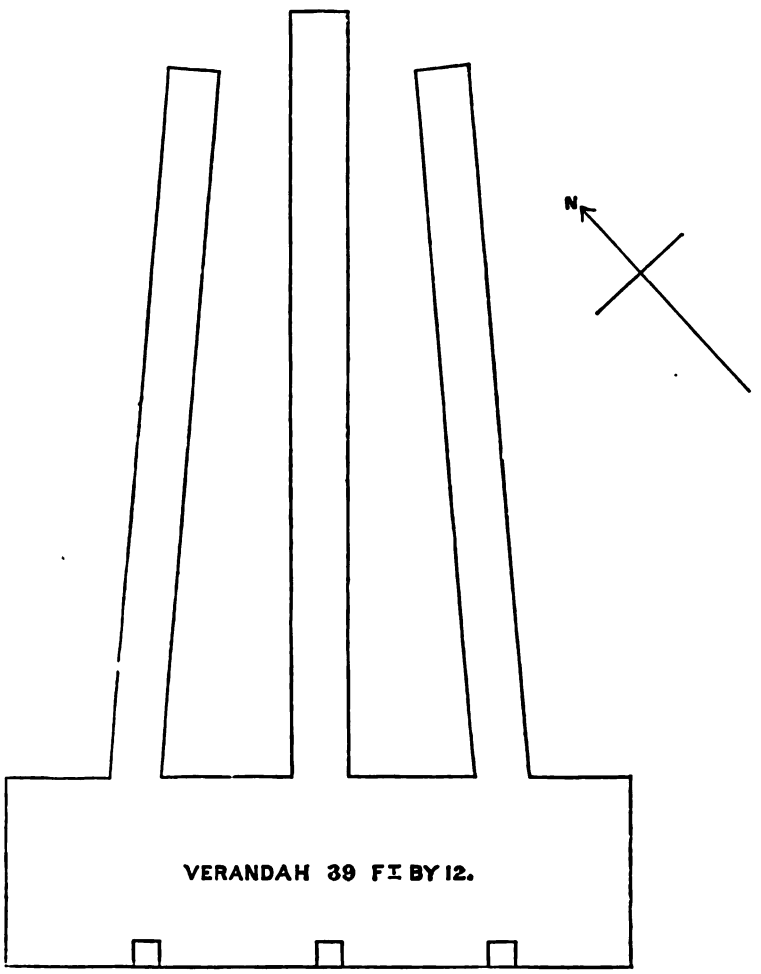

FIG. 10. Scale 12 feet to 1 inch.

sculptured in relief, and others perhaps have formed hollows for the reception of carved panels, but they are dilapidated beyond all possibility of deciding this point.

Very soon I discovered the disc-and-label pattern running along the upper part of the inner wall of the verandah in a condition of almost perfect preservation, and showing the same appearance of comparative hardness observable in other places. The pattern is here most exactly

and precisely carved, and although such an ornament may not seem highly decorative, it accords admirably with the solid and severe dignity of the cavern. One cannot keep one's eyes from it; and soon a certain irregularity is detected, caused by the labels not being synchronous, so to speak, with the discs, although the distances between individuals are regularly maintained in each row. Every fifth label, however, regains vertical coincidence with a disc. Thus, supposing Nos. 1, 2, 3, 4, 5, to represent a series of equidistant labels, and No. 1 to coincide with a disc, No. 5 will be the next to coincide. Fig. 11 is a sketch of the pattern. It did not occur to me to observe how many discs correspond to five labels, but judging from my original sketch the number would be fourteen, in which case thirteen spaces in the upper row are equivalent to four spaces in the lower one. Now it is curious that the length of the verandah compared with its breadth exhibits this same ratio of thirteen to four.

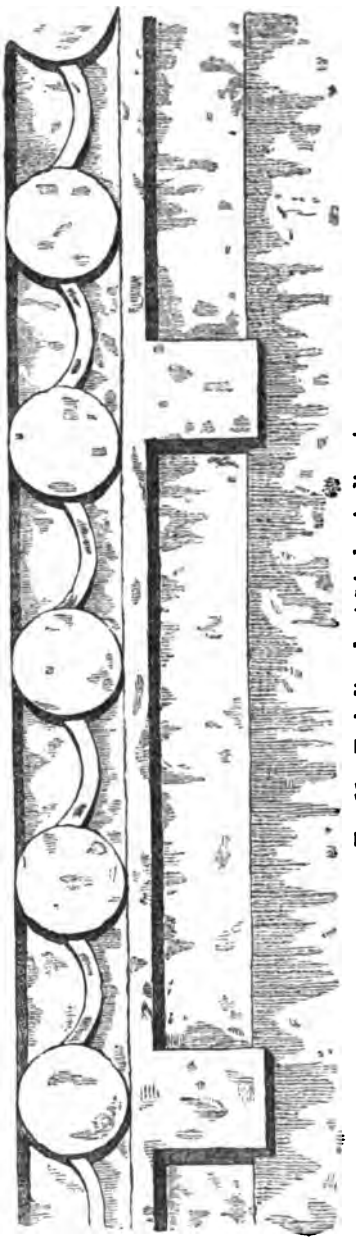

FIG. 11. Each disc about 5 inches in diameter.

The best conjecture I have to offer respecting the origin of this decoration is that it represents a highly conventionalised row of eaves, the discs being the ends of rafters, the festoons indicating the tiles, and the labels the ends of beams. But other carvings which adorn the cavern will not admit of being explained as survivals. The whole design of the verandah and its details is planned with perfect regularity and symmetry except in one striking particular. Between the doorways of the middle and western chambers—but not centrally between them—the trident symbol recurs; but unlike the example first mentioned, its three prongs spring out into several flamboyant branches. There is no carving on the

corresponding space between the central and eastern doorways. On the outside face of the pillars again the same theme is repeated, but with a different rendering in each case. Above the pillars a frieze covered with various details in relief exhibits personages seated upon unrecognisable animals, and at its eastern end is an object the meaning of which altogether defies conjecture, although its preservation is good. I scarcely know to what it can be likened, but it may be distantly compared to the press full of pigeon-holes in which the railway-clerk who takes fares keeps his tickets. In this instance the pigeon-holes are of various dimensions, and some of them are much fuller of tickets than others. I could not make a satisfactory examination of it, owing to the physical pain caused by its inspection. Any one who has suffered from exhibition headache will appreciate the sensation brought on by standing on the verge of a precipice, with one's back to it, and gazing almost vertically upwards at a surface very slightly inclined to the direction of sight. The representation of the object is of considerable size, perhaps five feet high.

A still more remarkable, though not more artistic excavation is that which, for want of a better name, may be called the King's Monument, carved in the body and face of a cliff on the left bank of the Min half way between Tao-ssu-kuan and Mo-tzŭ-ch'ang. It is known in the neighbourhood as the "Man Wang Tung"—Cave of the Mantzŭ King—and will be easily discovered by any one who inquires for it under that name. After ascending the cliff by a steep path the explorer walks along the brink which overhangs the monument until he sees a much steeper path leading down the precipice. Scrambling down the best way he can—there are plenty of weeds to hold on by—he comes after a few yards' progress to a doorway, the entrance to a flight of stairs which plunge into the heart of the rock. At the foot of these is a second flight forming in fact a pair of stairs, which lands him again on the face of the cliff in a small recess profusely carved with defaced and timeworn images, some of which are nearly detached, while others, possibly representing Buddhas, are sculptured in low relief on the sandstone wall. The most imposing effigy is a battered statue, 12 feet or more in height, the face of which is flattened away and pierced with deeply-cut square holes, presenting a most ghastly aspect, and really impressing a momentary horror upon a mind already troubled by the slippery descent and the sudden unexpected stairway leading down to the unknown. Now the word "Man-Wang"—King of the Mantzŭ—is loosely pronounced "Ma Wang," and a native who was with me insisted that the latter is the correct form and should be interpreted "The Pitted King," the evident intention of the square holes being to represent a severe case of small-pox. Unhappily for his most ingenious theory, this statue is not that of the king, and it is more probable that the holes were bored by the original sculptor for convenience in affixing a plaster mask which has been subsequently washed or worn away.

All the carvings in this recess are more or less unrecognisably mutilated. The floor is a mere ledge, without any parapet to save one from the precipice; but a levelled way leads a few yards along the face of the bluff into a kind of closet, wholly excavated in the sandstone, and overlooking the river by a window neatly cut through its thin outer wall. Beyond this is another ledge with a levelled floor about six feet wide, and here the explorer finds himself in full presence of the king.

His Majesty is represented by a very successful statue almost detached from the rock, and about as large again as life, seated on a bench in an easy and not ungraceful posture with one foot crossed upon the opposite knee and a hand laid upon the ankle, the body inclined slightly to the left and the face turned still more in the same direction. Although the work is not very delicate, it cannot be called rude. The sitter has an air of simple and unpretending affability, immensely differing from the "stuck-up" deportment of Chinese potentates as rendered by native sculptors; none but a born artist would have dared to portray an Oriental magnate in such unaffected guise. I should not even have observed the dress, but for a remark of my servant who noticed that the closely fitting coat was more like my frock-coat than a Chinese robe. The garment reaches to about mid-thigh, or a little lower, and very loose trowsers almost cover the shoes. The work is in fair preservation, and even much of the colouring has survived.

Perhaps the king's image is of later date than the other effigies. The people of the neighbourhood seem to take no interest in their conservation, but the approach to the grot is so secluded that they run little risk of gratuitous assault. No immediately local tradition, so far as I could learn, is attached to them. A Chinaman is always delighted to afford the fullest information about matters of which he is totally ignorant, but when he has remarked that the principal statue represents a Mantzŭ king, and inferred that it was carved by the Mantzŭ, he considers the subject exhausted. Whether the Mantzŭ—the aboriginal inhabitants of Western Ssŭ-ch'uan—were exterminated, absorbed, or exiled, is a question which historical research must solve; a stray traveller cannot expect, or be expected, to decide it. Mr. Alexander Wylie was the first to draw attention to these caves, and Baron von Richthofen makes allusion to them; but the proposed identification of their architects with the modern "Sifan," the twelve tribes who people the valley of the Upper T'ung, can hardly be more than a hopeful conjecture.

The Lolo chief who spent a few days with me under the precipices of Wa Shan professed to be acquainted with the Man Wang cave, and assured me that the statue portrays a certain Hsi-po, an ancient Lolo king—date unknown—of four powerful tribes, called Lin, Lung, Ma, and Wan, whose territory extended from Yueh-hsi to Chia-ting. It may be that Hsi-po is the same as the deity Shua-hsi-po, mentioned above; at any rate the Lolos worship Hsi-po, and burn as incense to him the

fragrant twigs of a dwarf fir which grows only on the loftiest summits. When speaking Chinese the Lolos call him Ma Wang—the Horse-king. "When we begin any enterprise," said the chief, "we invoke his name, much in the same way as the Chinese call upon Omito Fo. He is called the Horse-king because he could ride 500 *li* (100 miles) in the time it would take to cook a fowl (half an hour). The Chinese killed him, and ate his heart." Very likely this legend contains a grain of truth which more direct light may illumine.

The three caverns above described are the most elaborate I have seen, and the only examples I have gone many yards out of my way to visit. Hundreds, probably a great many hundreds, of a less artistic category exist, square or oblong chambers of five to eight feet, and some six feet high, entered by a doorway a yard or more square, which is cut into jambs on all four sides as if for the insertion of door-slabs, to close the opening. No trace however remains of such slabs. These are the most frequent, and are often excavated side by side, half a dozen together, in a convenient cliff, an arrangement which shows a certain resemblance to that of the ancient tombs at the temple of Pai-fo-ssŭ, mentioned above. Some of them, indeed not a few, are drilled high up in the face of a bluff, and impossible of approach; but in general their embrasures are level with the soil, or even beneath it in places where earth and fragments of rock have fallen from above and raised the surface. I have seen one instance, on the right bank of the Min above Chia-ting, where no less than twelve portholes, apparently entering upon caves of this character, are arranged with almost geometrical precision in three tiers, one above the other, and very close together. There is probably an internal communication between them, but they are too far aloft to be scaled without the aid of longer ladders than the Chinese employ. Caves of this kind, in one irregular tier, are common near Ch'ung-ch'ing, and some single specimens are met with even in the city. A case has occurred within my knowledge of a citizen digging in his garden at the foot of a low rock and coming, at four or five feet beneath the surface, upon the entrance of a cave which, however, contained no remains and, like all the rest, was unprovided with a door. A trustworthy observer informs me of an example near Ch'i-chiang Hsien, about 50 miles south of Ch'ung-ch'ing, which has been carved in a loose boulder of sandstone; in process of time the boulder has been upset, probably by a flood, in such a manner that the doorway now lies uppermost, like the mouth of a pit.

Another kind consists of a short gallery containing the settee above described, and sometimes a tank. There are many varieties of this species which it would be tedious to describe: enough has been said to show the interest and extent of the subject and to promise a rich reward to the patient explorer.

Two or three leading facts may be regarded as fairly established.

The caves are always situated near running water; but they do not occur, curiously enough, on the Yangtzŭ. Even if I had not failed to find them along the banks of that river, Captain Blakiston's silence on the subject would be almost conclusive. Again, none of them contain inscriptions. Brown, Jones, and Robinson, have indeed incised their signs-manual and recorded their *impressions de voyage* in the free and accepted manner of tourists, whether Chinese or cockney; but the style of such impromptus is easily recognised. If the caverns had been designed by Chinese architects, every instance would have exhibited a prominent and symmetrical inscription; the absence of anything of the kind is a proof that the constructors were not Chinese, and seems to indicate that they were not Buddhists, still they may have been early Buddhists. The ante-chapel leading to the King's Monument is carved, as already remarked, with small bas-reliefs very much worn down, which look like presentments of Buddha, and moreover colossal rock-statues are here and there met with in the cave country. One such, about 200 feet high, purports to be carved in the cliff opposite Chia-ting, but I failed to discover any trace of the sculptor's hand except in the face, which is roughly rounded from a projecting rock, and furnished with a plaster nose six or eight feet long. A more genuine colossus is found two days' journey east of Chia-ting, where, as a Russian traveller informs me, a hill has been hewn into a seated image of Buddha "several hundred feet high, which far overtops the roofs of the surrounding temples."

The last point worthy of remark is that while the Ssŭ-ch'uan caves are pierced in sandstone bluffs, the Lolo and Sifans inhabit a region of hard limestone in which such extensive perforations are impossible. It will consequently be hopeless to look in their countries for modern examples of such works with a view of supporting the theory that either of them are the descendants and representatives of the ancient Mantzŭ.

A persistent and plodding exploration of these interesting monuments will have to precede the formation of any trustworthy opinion respecting their design and their designers. The caves are of many kinds, and may have served many uses. They may have been tombs, houses, granaries, places of refuge, easily defended storehouses, shrines, memorials, and even sentry-boxes, according to their disposition and situation. The local Chinaman, a person of few thoughts, and fewer doubts, protests that they are the caves of the Mantzŭ, and considers all further inquiry ridiculous and fatiguing. His archæological speculations have not been greatly overstepped by my own theory, which I offer with diffidence, that these excavations are of unknown date, and have been undertaken, for unexplained purposes, by a people of doubtful identity.

Previous to the reading of the above paper,

The PRESIDENT said that he believed Sir Rutherford Alcock, their former President, was the author of the plan for the improvement of foreign diplomatic

service in China, the good results of which were now being reaped. Sir Rutherford persuaded the Government to establish in that country a school for the education of promising young men in the Chinese language, as well as in other necessary diplomatic information. Among these students Mr. Baber was one of the most distinguished. He acquired a remarkable knowledge of the Chinese language, and was chosen to accompany Mr. Grosvenor in a journey which extended across the whole of the southern portion of China, when the inquiry was made into the manner by which the unfortunate and gallant officer, Mr. Margary, met his death. Subsequently, he was appointed a consul at the principal town of West Ssŭ-chuan, and it was in the remoter portions of that province that the explorations were conducted which were described in the paper. In the absence of Mr. Baber, the paper would be read by Captain Gill, who had himself received the gold medal of the Society for his extensive and accurate explorations in China, the results of which had been given in one of the most valuable works upon Chinese travels which had ever issued from the press. Captain Gill was the personal friend of Mr. Baber, and travelled for three months with him up the great river through which the heart of China is entered. At the same time, the particular part of China about to be described has been visited only by Mr. Baber. It was commonly thought that in these days voyages of discovery were made rather to enlarge existing knowledge than to find new regions or new people, but Mr. Baber had visited an absolutely new country, and had been fortunate enough to come across a people of whose existence, race, and character, hitherto nothing at all had been known.

After the paper,

Sir Rutherford Alcock said the Society was very fortunate in having received a paper so full of original matter, and of such great scientific value as that of Mr. Baber. They were also fortunate in having (in the absence of the able writer) such a distinguished Chinese traveller as Captain Gill to read it. No one who was acquainted with Mr. Baber would fail to value not only his powers of mind, but his originality. His paper manifested a sense of humour in the narrative of his careful observations. He (Sir Rutherford) was glad to know that the paper had been written by a gentleman who first made his appearance in China while he was Minister at Pekin. Mr. Baber had previously distinguished himself at Cambridge, and had fully justified the hopes that were formed as to his future career. His discovery of what appeared to be a new language, and of a new people never before visited by any European, not even by Marco Polo, was a feat that could be reserved for very few in the present age of the world.

M. Terrien de LaCouperie said: Je suis très-honoré et ne saurais trop remercier le Président de son très gracieux appel à mes études spéciales à propos de l'une des plus importantes contributions qui aient été depuis longtemps fournies à l'ethnologie et à la linguistique de l'extrême-Orient. Je ne saurais jusqu'à présent dire que peu de chose du MS. Lolo envoyé par Mr. Colborne Baber. J'en ai eu communication grâce à l'amitié du Capitaine Gill, mais sans avoir eu aucune connaissance des nombreuses et valables informations contenues dans le rapport qui vient de vous être soumis. La copie xylographiée que j'ai examinée comprend sur huit feuillets 1800 mots dont 450 différents, en plusieurs textes qui ne sont pas tous de la même main et me semblent traiter de matières variées. Un mot est répété plus de cent fois, quelques uns une cinquantaine, un plus grand nombre de vingt à trente et ainsi de suite progressivement; le plus grand nombre est celui des exemples uniques. L'écriture est phonétique composée d'un petit nombre de caractères, moins de quarante; elle est alphabétique, les lettres se combinent en groupes. Le fait le plus remarquable à signaler et qui au premier moment causera quelques surprises à cause des théories prématurées est son extrême ressemblance avec quelques écritures

du grand archipel d'Asie. Son affinité est remarquable avec les écritures des Lampung et des Redjang de Sumatra auxquelles se rattachent celles des Battaks, Bugis et Mankassars, et probablement plusieurs autres plus à l'est. Si l'on veut bien se rappeler que l'anthropologie nous a signalé depuis quelques années l'existence et l'extension ancienne vers le sud de la race au type dit Caucasique à laquelle appartiennent les Lolos, on sera moins étouné de ce fait. Mais là ne s'arrêtent pas les affinités de cette écriture remarquable. Le Major Clarke, dans ses fouilles à Harapa dans le Pendjâb, a trouvé il y a quelques années un sceau en pierre qui a été publié par le Général A. Cunningham dans un des 'Reports of the Archæological Survey of India,' et ensuite dans son 'Corpus Inscriptionum Indicarum.' Or, la légende de ce sceau est en caractères pareils à ceux des Lolo, du MS. Baber. Et le savant archéologue lui attribue une antiquité de quatre à cinq siècles avant notre ère. D'un autre côté, je me permettrai de rappeler que j'ai signalé à la Royal Asiatic Society, l'affinité de l'alphabet Coréen et d'un ancien alphabet du Japon avec l'écriture Indo-Pâli d'Açoka, affinité qui est à considérer, comme le prouvent certaines formes archaïques des caractères, non comme une dérivation, mais comme un parallélisme par suite d'une origine commune. Enfin, l'écriture des Lolos offre les ressemblances les plus remarquables avec cette écriture d'Açoka, la plus ancienne connue de l'Inde; mais ces ressemblances ne sont pas le résultat d'une filiation directe de l'une à l'autre. Leur ensemble conduit à considérer l'écriture des Lolos comme faisant partie d'une famille d'écritures plus ou moins perfectionnées ultérieurement, dont nous trouvons l'origine, par la même série d'affinités, dans l'emploi phonétique d'un certain nombre de caractères chinois avec leurs prononciations de l'ouest de la Chine, emploi fait par les états frontières, selon toute probabilité, pour faciliter leurs relations commerciales. Les caractères Chinois auxquels ces écritures comparées nous conduisent en dernier ressort, appartiennent à l'écriture progressivement réduite qui était en usage en Chine quelques siècles avant notre ère et qui fut officiellement abandonnée en 211 av. n. è. Nous en trouvons de nombreux exemples non seulement sur les inscriptions mais encore sur les monnaies de l'époque. Il est une autre écriture des aborigènes de la Chine dont je suis heureux de pouvoir dire ici quelques mots, parceque son étrangeté nous est expliquée en partie par l'écriture des Lolos, dont elle parait être une variété fort grossière. C'est celle des Na-shi ou Mossos, qui n'éxiste plus qu'entre les mains des *tomba* ou sorciers et dont le P. Desgodins, le missionnaire au Tibet bien-connu, a pu prendre une copie qu'il a envoyée à sa famille en France, et dont je dois la communication à l'obligeance de M. Girard de Rialle. Cette écriture, outre un grand nombre de signes et de combinaisons comme celle des Lolo et d'anciens caractères Chinois? contient une masse de figures mythologiques, divinités, animaux, caractères bouddhiques, &c. Le British Museum est redevable au Capitaine Gill d'un très-beau MS. Na-shi, qu'il a eu l'heureuse chance de se procurer en passant à proximité de leur pays, pendant son remarquable voyage. Le Capitaine Gill, comme Mr. Colborne Baber, a droit à la reconnaissance des orientalistes. Mais tout ceci demande à être exposé dans un mémoire scientifique avec l'ensemble des preuves discutées au menu; ce qui ne saurait être fait dans une simple communication verbale déjà trop longue et dont je vous prie de m'excuser.*

The PRESIDENT, in proposing a vote of thanks to Captain Gill, said the paper was

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* Since the above was spoken, I have been able, by the kindness of Mr. Bates, to avail myself of the two other documents of Lolo writing sent by Mr. Baber; viz. the bilingual page and the list of twenty-one words. The result of this further inquiry is that I have nothing to modify in the foregoing statements, and that the Lolo writing is undoubtedly phonetic, and presents the most remarkable affinities with the writings of Sumatra to which I have referred.—T. de L.

sent by Mr. Baber to that gentleman with a request that he would forward it to the Royal Geographical Society. Captain Gill did as he was requested, but the value of the paper was only beginning to be ascertained when the Society received a notice from the Foreign Office saying that it ought not to have been forwarded to the Society, but should have been communicated to the Foreign Office. It had been sufficiently examined to show that it was entirely of geographical and in no respect of political interest, but of course the Society could not refuse to surrender it as it had been sent by an official connected with the Foreign Office. At the same time representations were made to the Foreign Office, and a hope was expressed that it might be returned to the Society. Hardly twenty-four hours before the meeting a letter was received from the Foreign Office requesting that the Society would furnish them with a printed copy of the paper in order that it might be placed in the archives. Captain Gill had, therefore, had the very difficult task of making selections from it at very short notice, but the specimens that had been read showed that Mr. Baber was not only a man who could think, but one who was able to express his thoughts in the most felicitous manner. At the same time it was impossible by a few extracts to convey to any audience an idea of the amount of minute and valuable information contained in the paper, which included several sheets of observations most carefully taken. The author had acquainted himself with all the knowledge required by the traveller who desired to obtain accurate information. His observations and his admirably made charts rendered the paper one of unusual and extraordinary interest, quite apart from the fact that the region discovered was inhabited by so singular a people as the Lolos appeared to be. The paper would shortly be published, and would justify the eulogiums passed upon it by all those who had had an opportunity of reading it.

APPENDICES.

APPENDIX A.

Corrected Readings of Temperature and Atmospheric Pressure at Ch'ung-Ch'ing.

The station is a house in the street known as Chiang-chia-hang, 225 feet above the level of the Yang-tzŭ, in latitude 29° 34′ N. and longitude 106° 50′ E.

The annexed table gives the monthly means of temperatures recorded three times a day at the hours indicated.

Temperature.

	1877.			1878.			1879.			1880.			Mean.		
	9 A.M.	3 P.M.	9 P.M.	9 A.M.	3 P.M.	9 P.M.	9 A.M.	3 P.M.	9 P.M.	9 A.M.	3 P.M.	9 P.M.	9 A.M.	3 P.M.	9 P.M.
Jan.	..	..	..	42·6	..	44·8	46·3	49·5	48·0	44·6	47·6	46·7	44·5	48·5	47·3
Feb.	..	..	..	..	..	..	49·6	53·5	51·8	47·5	50·1	48·7	48·5	51·8	50·2
Mar.	..	..	..	..	..	..	52·1	55·9	55 0	57·2	63·5	60·6	54·6	59·7	57·8
April	66·1	71·9	66·6	..	..	..	65·0	70·5	67·4	63·5	69·6	65·5	64·9	70·7	66·5
May	70·0	74·2	72·0	..	..	..	69·4	77·0	74·5	71·0	76·6	73·4	70·1	75·9	73·3
June	76·4	82·2	78·6	..	..	..	75·7	81·0	78·1	74·1	78·6	75·7	75·4	80·6	77·5
July	..	..	..	79·1	84·0	80·6	82·7	88·3	84·9	80·2	85·7	82·5	80·7	86·0	81·5
Aug.	..	..	..	82·1	87·9	85·0	83·2	90·2	86·0	..	..	..	82·6	89·0	85·5
Sept.	..	..	..	77·4	83·8	78·1	77·0	82·5	78·6	76·3	83·6	79·6	76·9	83·3	78·8
Oct.	..	..	..	65·2	68·1	66·8	64·3	66·6	65·3	66·5	70·1	68·0	65·3	68·3	66·7
Nov.	..	..	..	57·7	60·9	59·0	57·6	60·9	59·4	..	..	..	57·7	60·9	59·2
Dec.	49·9	..	51·5	49·9	52·9	51·6	49·7	52·9	51·5	..	..	..	49·8	52·9	51·5
										Mean	..		64·2	69·0	66·3

The pressures shown in the following table were read from aneroid barometers, whose index error was frequently tested by comparison with boiling-point thermometers (with Kew corrections).

Pressure.

	1877.			1878.			1879.			1880.			Mean.		
	9 A.M.	3 P.M.	9 P.M.	9 A.M.	3 P.M.	9 P.M.	9 A.M.	3 P.M.	9 P.M.	9 A.M.	3 P.M.	9 P.M.	9 A.M.	3 P.M.	9 P.M.
Jan ..	..	..	..	..	..	..	29·49	29·34	29·42	29·48	29·33	29·42	29·485	29·335	29·420
Feb. ..	..	..	..	..	..	..	29·35	29·21	29·29	29·35	29·23	29·33	29·350	29·220	29·310
March ..	..	..	..	..	..	..	29·29	29·17	29·24	29·30	29·17	29·23	29·295	29·170	29·235
April ..	29·22	29·13	29·18	..	..	..	29·13	29·00	29 08	29·20	29·05	29·16	29·183	29·060	29·140
May ..	28·97	28·86	28·93	..	..	..	29·01	28·89	28·92	29·04	28·95	29·00	29·007	28·900	28·950
June ..	28·87	28·78	28·84	..	..	..	28·91	28·81	28·89	29·00	28·93	28·98	28·927	28·840	28·903
July ..	..	..	..	..	..	..	28·85	28·77	28·83	28·89	28·81	28·87	28·870	28·790	28·850
August	..	..	..	..	..	..	28·97	28·86	28·93	..	..	..	28·970	28·860	28·930
Sept. ..	..	..	..	..	..	..	29·11	28·99	29·09	29·19	29·06	29·14	29·150	29·025	29·115
Oct. ..	..	..	..	29·36	29·28	29·33	29·35	29·25	29·32	29·41	29·31	29·37	29·378	29·280	29·340
Nov. ..	..	..	..	29·55	29·42	29·50	29·39	29·26	29·33	..	..	..	29·470	29·340	29·415
Dec. ..	..	..	..	29·52	29·38	29·44	29·40	29·27	29·34	..	..	..	29·460	29·326	29·390
										Mean	..		29·212	29·095	29·166

A comparison of these readings with data supplied in Dr. Fritsche's 'Climate of Eastern Asia' places the station at 845 feet above sea-level.

The above means have been employed in calculating the altitudes in the next Appendix, i. e. Ch'ung-ch'ing has been taken as the *Lower Station* and 845 feet added to all results.

APPENDIX B.

Calculation of Altitudes.

Although I carried no hypsometrical apparatus by which to test aneroid readings, my lines of route cross very happily altitudes previously determined by Captain Gill, and I am thereby enabled to deduce the requisite corrections and to obtain fairly trustworthy results. The first stations of comparison occur a little beyond Ya-chou; the contrast between Captain Gill's record and my uncorrected readings was as follows:—

Station.	Date of Mr. Baber's visit.	Mr. Baber's Uncorrected Readings.	Date of Captain Gill's Visit.	Captain Gill's Corrected Mean Pressure.
Kuan-yin-p'u	Aug. 10, 7 A.M.	26·51	July 15	27·17
Yung-ching Hsien	„ „ 9 P.M.	26·68	„ 16	27·35
Huang-ni-p'u	„ 11, 9 „	25·37	„ 17	26·03
Ta Hsiang-ling	„ 12, 7 „	20·77	„ 18	21·30
Ch'ing-ch'i Hsien	„ 13, 9 „	23·72	„ „	24·48

Allowing for the difference of date the comparison shows an index error of 0·77 + which I have accordingly applied to all subsequent readings.

No.	Date.	Place.	Corr. Bar.	Corr. Ther.	Bar. at L.S.	Ther. at L.S	Deduced Altitude	Remarks.
	1877						feet.	
1	Aug. 17, 4 P.M.	Fu-lin	27·57	78	28·87	88	2175	On Ta-tu river.
2	„ 18, noon	Pass S. of Ta-shu-pu	25·23	75	28·92	86	4770	
3	„ „ 9 P.M.	P'ing-i-p'u	25·11	73	28·94	84	4910	
4	„ 19, 3 „	Pass above Hai-t'ang	22·77	73	28·89	88	7700	
5	„ 20, 7 A.M.	Hai-t'ang or Ning-yueh	23·71	62	28·97	78	6490	
6	„ 21, 8 „	Liao-i-p'u	24·27	62	28·98	80	5870	
7	„ 22, 10 „	Kuan-ting	23·61	72	28·98	82	6720	
8	„ „ 10 P.M.	Yueh-hsi T'ing ..	24·72	72	28·96	82	5380	
9	„ 23, 11 „	Hsiao-shao	23·81	67	28·97	81	6440	
10	„ 24, 11 A.M.	Hsiao Hsiang-ling	21·27	71	28·98	84	9710	On summit.
11	„ „ 10 P.M.	Têng-hsiang-ying	22·91	69	28·97	82	7550	
12	„ 27, 7 A.M.	Lu-ku	24·80	65	29·00	76	5290	
13	„ 28, 6 „	Li-chou	24·94	66	28·98	74	5110	
14	„ 30, 7 P.M.	Ning-yuan Fu ..	24·99	76	28·99	83	5135	
15	„ 31, 11 „	Huang-lien-p'u ..	25·21	70	29·00	80	4870	
16	Sept. 1, 10 „	Ma-li-chai	25·22	69	29·00	80	4860	
17	„ 2, 9 „	Hsiao-kao-ch'iao	25·67	72	29·01	81	4380	
18	„ 3, 10 „	T'ieh-hsiang-fang	26·01	75	29·00	80	4000	
19	„ 5, 7 A.M.	Tien-sha-kuan ..	25·62	68	29·04	74	4430	
20	„ 6, 7 „	Mo-so-ying	25·72	65	29·04	74	4300	
21	„ 7, 7 „	Pai-ko-wan	23·82	58	29·04	74	6435	
22	„ 9, noon	Hui-li Chou ..	24·26	67	29·03	81	6000	
23	„ 12, 6 A.M.	T'an-kuan-yao ..	24·23	61	29·05	71	5980	
24	„ 13, noon	Liu-shu-wan ..	24·39	75	29·04	81	5895	
25	„ 14, 7 A.M.	Near K'u-chu ..	24·54	68	29·06	73	5650	On river.
26	„ „ 3 P.M.	Summit of ridge	22·07	72	29·00	83	8695	
27	„ 15, 7 P.M.	Tu-ké	22·83	58	29·06	80	7670	
28	„ 16, 9 A.M.	Ché-po	23·44	58	29·11	77	6965	
29	„ 17, 8 „	Ta T'an-kuan-yao	24·92	63	29·10	75	5240	
30	„ 18, noon	Near Wa-wu ..	28·05	74	29·07	80	1900	On Gold River.

No.	Date.	Place.	Corr. Bar.	Corr. Ther.	Bar. at L.S.	Ther. at L.S.	Deduced Altitude	Remarks.
	1877						feet.	
31	Sept. 18, 8 P.M.	Ch'iao-chia T'ing	27·41	70	29·10	77	2580	
32	„ 19, 4 „	Ridge on R. B. of Gold River ..	21·98	72	29·02	82	8815	
33	„ 20, noon	Ai-chuo	22·68	71	29·10	79	7960	
34	„ „ 7 P.M.	Mao-p'o	23·47	63	29·11	78	6940	
35	„ 22, 8 A.M.	Fa-ni-wo	23·86	61	29·14	73	6470	
36	„ „ 1 P.M.	Summit of pass ..	22·03	50	29·10	79	8630	
37	„ 24, 8 A.M.	Ta-p'ing	24·55	56	29·17	73	5670	
38	„ 25, 9 „	Near Wei-ku ..	27·25	63	29·18	74	2780	On Niu-lan river.
39	„ 26, 9 „	Shui-kou	23·97	54	29·19	73	6340	
40	„ 27, 9 „	Hei-lu-ch'i	23·12	48	29·20	73	7320	
41	„ 28, 8 „	Ku-chai	23·42	52	29·19	72	6970	
42	„ 29, 8 „	Hsin-kai-tzŭ ..	23·50	49	29·21	68	6835	
43	„ 30, 8 „	Yuan-chia-ta-ti ..	23·28	49	29·21	68	7095	
44	„ „ 10 „	Pai-fa-ch'i	21·97	47	29·23	73	8730	
45	„ „ 3 P.M.	Highest point of Downs	21·29	48	29·12	77	9540	
46	Oct. 1, 7 A.M.	Yeh-chu-chai ..	22·04	49	29·22	66	8600	
47	„ 2, 10 „	Kuan-chai	21·97	49	29·25	72	8760	
48	„ 4, 7 „	Hsin-tien-tzŭ ..	26·02	57	29·24	64	4060	
49	„ 6, 9 „	Near Huang-kuo-shu	28·91	69	29·28	68	1200	On Gold River.
50	„ „ 4 P.M.	Ya-k'ou	25·07	70	29·15	71	5090	
51	„ 8, 8 A.M.	Mi-t'ien-pa	25·65	63	29·28	64	4525	
52	„ „ noon	Ting-chiang-ao ..	24·93	71	29·25	69	5340	
53	„ 9, 7 A.M.	Ta-wu	26·17	57	29·28	63	3945	
54	„ 10, 7 „	Lêng-fan-kou ..	26·37	56	29·28	63	3735	
55	„ 11, 7 „	Ching-ti	27·67	63	29·29	62	2425	
56	„ 12, 8 „	Kuo-ch'üan-t'an ..	29·04	70	29·32	63	1115	A few feet above Gold River.
57	„ 15, 7 „	½ mile N. of Nan-mu-p'ing	26·80	60	29·32	61	3330	
58	„ 16, 7 „	Chuo-pang-ai	27·38	63	29·32	61	2745	
	1878							
59	Mar. 16, 9 A.M. 3 P.M. 9 „	Fu-lin	27·87	55	29·22	58	2145	In village (see Nos. 1 and 73).
60	„ 18, 9 A.M. 3 P.M. 9 „	Ho-ch'ang-pa ..	27·76	55	29·22	58	2250	
61	„ 22, 9 A.M. 3 P.M. 9 „	Tzŭ-ta-ti	27·54	64	29·20	59	2465	A few feet above Ta-tu river.
62	Apr. 19, 5 P.M.	Pass between T'ien-wan and Wan-tung ..	23·32	71	29·04	70	7020	
63	„ 21, 8 A.M.	Pass between Wan-tung and Mo-si-mien	22·17	59	29·13	64	8410	
64	„ 22, 8 „	La-ma-assŭ	24·52	53	29·13	64	5590	
65	„ 23, 8 „	Ta-ch'iao	22·27	39	29·12	64	8135	
66	„ 24, 8 „	Pass between Ta-ch'iao and Ta-chien-lu	18·69	32	29·12	64	12820	
67	May 7, 9 „ 9 P.M.	Ta-chien-lu ..	22·03	56	29·00	70	8480	Capt. Gill has 8346
68	„ 20, 9 A.M. 9 P.M.	Lu-ting-ch'iao ..	25·42	70	28·95	72	4515	„ „ 4640
69	„ 24, 8 A.M.	Hua-lin-p'ing ..	23·19	61	28·97	69	7050	„ „ 7073

No.	Date.	Place.	Corr. Bar.	Corr. Ther.	Bar. at L.S.	Ther. at L.S	Deduced Altitude	Remarks.
	1878						feet.	
70	May 24, 10 A.M.	Fei-yueh-ling ..	21·34	62	28·97	73	9410	Capt. Gill has 9022
71	„ 25, 8 „	Ni-t'ou	24·91	69	28·97	69	5090	„ „ 4882
72	„ 26, 8 „	Fu-chuang	26·09	73	28·96	69	3790	„ „ 3873
73	„ 30, 7 „	Fu-lin	27·34	71	28·95	67	2450	In upper chamber of temple. Accept 2150 for level of river.
74	„ „ 3 P.M.	Ma-lie	24·69	73	28·87	78	5290	
75	„ „ 9 „	Ma-lie-shao ..	22·80	67	28·92	74	7540	
76	June 1, 8 A.M.	Huang-mu-ch'ang	23·93	58	28·95	71	6150	
77	„ „ 4 P.M.	So-i-ling Pass ..	21·74	55	28·86	79	8775	
78	„ 2, 9 A.M.	Ta-t'ien-ch'ih ..	24·10	63	28·95	73	5985	
79	„ 5, 11 „	Summit of Mt. Wa	20·37	48	28·90	75	10545	
80	„ 11, 7 „	Chin-kou-ho ..	28·04	71	28·90	71	1695	
81	„ 12, 9 „	Shui-tiao-lin ..	26·24	68	28·93	75	3600	
82	„ 13, 9 „	Hsin-ch'ang ..	27·12	66	28·93	75	2670	
83	„ 17, 9 „ / 3 P.M. / 9 „	Chia-ting Fu ..	28·66	75	28·89	75	1070	On river.
84	.. ..	Huang-mao-kang	1670 ft. above Chia-ting Fu				2740	
85	.. ..	Yü-lung	2430	„	„		3500	
86	.. ..	Ta'ai-kou	2560	„	„		3630	
87	.. ..	Omi Hsien	400	„	„		1470	
88	.. ..	Mt. Omi	9770	„	„		10840	
89	.. ..	Lung-ch'ih	1660	„	„		2720	A few feet above lake.
90	.. ..	Lu-lu-p'ing ..	2560 ft. above Chin-kou-ho				4255	
91	.. ..	P'ing-shan Hsien	..		..		1025	

The following levels, observed in 1876, are somewhat less trustworthy :—

No.	Date.	Place.	Corr. Bar.	Corr. Ther.	Bar. at L.S.	Ther. at L.S	Deduced Altitude	Remarks.
	1876							
92	Feb. 4, 3 P.M.	An-pien	29·27	52	29·25	51	870	Probably too low by 100 feet.
93	„ 9, 7 A.M.	Lao-wa-t'an ..	29·00	41	29·32	45	1140	
94	„ „ 1 P.M.	Summit of Li-shan	26·18	46	29·28	50	3865	
95	„ 10, 9 A.M. / 9 P.M.	Ch'i-li-p'u ..	27·48	48	29·34	48	2610	
96	„ 14, 8 A.M.	Ta-kuan Hsien	26·35	42	29·34	47	3725	
97	„ „ 1 P.M.	Yang-liu-shu ..	25·86	48	29·27	51	4195	
98	„ 15, 9 „	Wu-chai	24·22	39	29·31	49	5950	
99	„ „ 1 „	Ta-ngai-tung ..	23·84	50	29·27	51	6410	
100	„ 16, 9 A.M.	Wu-ma-hai ..	23·48	38	29·35	48	6805	
101	„ 17, 8 „ / 2 P.M. / 9 „	Chao-t'ung Fu	23·67	44	29·29	50	6585	
102	„ 21, 9 „	Lu-tien	23·78	35	29·30	52	6420	
103	„ 22, 3 „	Ma-tsao-kou ..	22·93	43	29·21	54	7380	

No.	Date.	Place.	Corr. Bar.	Corr. Ther.	Bar. at L.S.	Ther. at L.S	Deduced Altitude	Remarks.
	1876						feet.	
104	Feb. 23, 8 A.M.	Chiang-ti ..	25·78	42	29·32	48	4300	100 feet above Niu-lan R.
105	„ „ 1 P.M.	Ya-kou-t'ang ..	23·60	61	29·27	52	6750	
106	„ „ 9 „	I-chê-hsün ..	24·05	54	29·29	52	6220	
107	„ 24, 3 „	Shan-hu-shu ..	22·98	44	29·21	54	7335	
108	„ 25, 8 A.M.	Hung-shih-ngai	23·84	31	29·31	49	6330	
109	„ „ 9 P.M.	Tung-ch'uan Fu	23·10	36	29·28	52	7190	
110	„ 27, 3 „	Ch'ê-lu-ching ..	21·00	52	29·20	55	(?)9000	Beyond range of aneroid.
111	Mar. 1, 1 „	Liu-shu-ho ..	23·40	70	29·24	54	7020	
112	„ „ 9 „	Hsün-tien Chou	23·84	58	29·28	53	6470	
113	„ 2, 1 „	Chiang-so ..	23·72	69	29·24	55	6650	
114	„ „ 9 „	I-lung	23·33	54	29·27	54	7040	
115	„ 4, 8 A.M.	Yang-lin	23·71	56	29·30	50	6610	
116	„ 5, 1 P.M.	Fên-shui-ling ..	23·22	63	29·23	55	7190	
117	„ 17, {7 A.M. 9 P.M.}	Yun-nan Fu ..	23·78	51	29·25	55	6490	

APPENDIX C.

Latitudes of Positions.

No.	Station.	Object Observed.	Deduced Latitude.			Mean or corrected Latitude.			Remarks.
			°	′	″	°	′	″	
1	P'ing-shan Hsien ..	Star N.	28	39	6				
2	„ ..	Sun	28	39	8	28	39	7	On river bank at east end of city.
3	Yen-tzŭ-ngai	Sun	28	24	0	28	23	49	
4	T'an-t'ou	Star S.	28	19	49	28	19	38	
5	Lin-chiang-ch'i ..	Sun	28	9	23	28	9	12	
6	Summit of Li-shan ..	Sun	28	3	21	28	3	10	
7	Ta-ngai-tung	Sun	27	31	29	27	31	18	
8	Cha-shang	Sun	27	25	23	27	25	12	
9	Chao-t'ung Fu ..	Star S.	27	20	42		..		Examination Hall.
10	„ ..	Sun	27	20	29				
11	„ ..	Star S.	27	20	41				
12	„ ..	Star S.	27	20	49				
13	„ ..	Sun	27	20	43	27	20	30	
14	Cha-la-hsün	Sun	27	16	31	27	16	20	
15	Chiang-ti	Star S.	27	0	1				
16	„	Star N.	26	59	39	26	59	50	
17	Ya-kou-t'ang	Sun	26	54	52	26	54	41	
18	I-chê-hsün	Star S.	26	49	30	26	49	19	
19	Shan-hu-shu	Sun	26	42	48	26	42	37	
20	Hung-shih-ngai ..	Star S.	26	37	38	26	37	27	
21	Tung-ch'uan Fu ..	Star S.	26	24	59	26	24	48	Examination Hall.
22	Hsiao-ch'ang-t'ang ..	Sun	26	19	49	26	19	38	
23	Chê-chi	Star S.	26	14	37				
24	„	Star N.	26	14	20	26	14	28	
25	Lai-t'ou-p'o	Star S.	26	1	42				
26	„	Star N.	26	1	39				
27	„	Sun	26	1	8				
28	„	Star S.	26	1	27	26	1	40	

No.	Station.	Object Observed.	Deduced Latitude.			Mean or corrected Latitude (N.)			Remarks.
			°	′	″	°	′	″	
29	Kung-shan	Star S.	25	45	7				
30	,, ...	Star N.	25	44	49	25	44	58	
31	Liu-shu-ho	Sun	25	40	9	25	39	58	
32	Hsün-tien Chou ..	Star S.	25	34	6				
33	,, ..	Star N.	25	33	34	25	33	50	
34	Chiang-ao	Sun	25	26	28	25	26	17	
35	I-lung	Star N.	25	22	9	25	22	20	
36	Ho-k'ou	Sun	25	17	11	25	17	0	
37	Yang-lin	Star S.	25	13	36				
38	,, ...	Star N.	25	13	18	25	13	27	
39	Ch'ang-p'o	Star S.	25	7	46				
40	,, ...	Star N.	25	7	48	25	7	45	
41	Fên-shui-ling ..	Sun	25	5	24	25	5	20	
42	Pan-ch'iao	Star S.	25	3	6				
43	,, ...	Star N.	25	3	18	25	3	12	
44	Yun-nan Fu	Star S.	25	2	41				
45	,, ...	Star N.	25	2	35				
46	,, ...	Star S.	25	2	45				
47	,, ...	Star N.	25	2	55	25	2	44	
48	Liao-i-p'u	Star S.	28	54	37	28	54	0	
49	Pao-an-ying	Star S.	28	49	53	28	49	15	
50	Têng-hsiang-ying ..	Star S.	28	28	22	28	27	44	
51	Ning-yuan Fu ..	Star S.	27	54	14		..		Examination Hall.
52	,, ..	Star S.	27	54	8				
53	,, ..	Star N.	27	52	41	27	53	25	
54	Huang-lien-p'u ..	Star S.	27	41	19				
55	,, ..	Star N.	27	40	10	27	40	44	
56	Ma-li-chai	Star S.	27	32	8	27	31	30	
57	Hsiao-kao-ch'iao ..	Star S.	27	22	14	27	21	36	
58	Chin-ch'üan-ch'iao ..	Sun	27	11	32	27	10	54	
59	Hui-li-chou	Sun	26	39	35		..		Examination Hall.
60	,, ...	Sun	26	39	35	26	39	0	
61	½ mile N.W. of Hsiao-pa	Sun	26	34	23	26	33	45	
62	Liu-shu-wan	Sun	26	35	56	26	35	18	
63	Wa-wu	Sun	26	53	47	26	53	10	
64	Ch'iao-chia T'ing ..	Star N.	26	54	14				
65	,, ..	Star S.	26	55	29	26	54	51	
66	Ai-chuo	Star N.	26	55	5				
67	,, ...	Star S.	26	56	32				
68	,, ...	Sun	26	56	6	26	55	48	
69	Mao-p'o	Star N.	26	57	55	26	58	33	
70	Niu-ko-ch'ang	Sun	27	2	58	27	2	20	
71	Near Lung-shu ..	Sun	27	18	29	27	17	51	
72	Pai-fa-ch'i	Sun	27	33	2	27	32	24	
73	San-chia-chai	Sun	27	39	27	27	38	50	
74	Yang-liu-shu	Sun	27	50	48	27	50	10	
75	Huang-p'ing	Star N.	27	52	0				
76	,, ...	Star S.	27	53	23	27	52	41	
77	Sha-ho	Sun	27	57	22	27	56	44	
78	Kan-t'ien-pa	Star N.	27	57	16				
79	,, ...	Star S.	27	58	40	27	57	58	
80	Huang-kuo-shu ..	Sun	28	0	2	27	59	24	
81	Ya-k'ou	Star N.	28	0	26				
82	,, ...	Star S.	28	1	35	28	1	0	
83	Ting-chiang-ao ..	Sun	28	5	3	28	4	25	
84	Yu-fang-kou	Sun	28	13	26	28	12	48	

No.	Station.	Object Observed.	Deduced Latitude.			Mean or corrected Latitude.			Remarks.
			°	′	″	°	′	″	
85	Ching-ti	Star N.	28	13	42				
86	„	Star S.	28	14	51	28	14	16	
87	On bluff E. of Ching-ti	Sun	28	15	5	28	14	27	
88	Kuo-ch'ün-t'an ..	Star S.	28	13	29	28	12	51	
89	Hsin-tien-tzŭ	Sun	28	14	51	28	14	13	
90	Huang-lung-ch'i ..	Sun	28	35	41	28	35	3	
91	1½ miles W. of Ming-yuan Bridge	Sun	28	38	38	28	38	0	
92	Sui Fu (Sü-chou Fu) in mouth of River Min.	Sun	28	47	23	28	46	43	
92*a*	2 miles above Niu-shih-pien	Sun	28	48	11	28	47	31	
93	½ mile above middle of Chu-kên-t'an ..	Sun	29	25	31	29	24	51	
94	Mouth of T'ung river	Sun	29	34	4	29	33	24	
95	Chia-ting Fu (middle of east wall) ..	Sun	29	34	40	29	34	0	
96	Ta-t'ien-ch'ih	Sun	29	24	0	29	23	20	
97	Mu-hsü	Sun	29	21	18	29	20	38	
98	Fu-lin	Sun	29	21	46	29	21	6	
99	Ho-ch'ang-pa	Sun	29	21	29	29	20	49	
100	1 mile W.S.W. of Lao-wa-hsüan	Sun	29	14	48	29	14	8	
101	Tzŭ-ta-ti	Sun	29	17	53				
102	„	Star S.	29	17	27				
103	„	Star N.	29	16	0				
104	„	Sun	29	17	28	29	16	44	
105	Lao-wa-hsüan	Sun	29	15	38	29	14	58	
106	Na-erh-pa	Sun	29	16	22				
107	„	Star N.	29	14	37				
108	„	Star S.	29	16	14				
109	„	Star N.	29	14	38				
110	„	Star S.	29	16	13	29	15	25	
111	Ch'u-la Ravine ..	Star N.	29	19	50				
112	„	Star S.	29	20	53	29	20	20	
113	Ta-chien-lu (100 yards N. of South Gate)	Star N.	30	2	40				
114	„ „	Star N.	30	2	25				
115	„ „	Star S.	30	3	49				
116	„ „	Star S.	30	3	28	30	3	5	
117	Lu-ting-ch'iao	Star N.	29	54	27				
118	„ ..	Star S.	29	55	8				
119	„ ..	Star S.	29	55	24				
120	„ ..	Star N.	29	54	43	29	54	55	
121	Fu-chuang	Star S.	29	33	23	29	32	54	

APPENDIX D.

Longitude of Positions.

No.	Station.	Date.	Method of Observation.	Longitude E.		Remarks.
		1877.		° ′	° ′	
1	Ch'iao-chia T'ing	Sept. 18 ..	Lunars	Jupiter W. 103 3·5 / Saturn E. 102 39	102 51·2	Accept 103° 5′.
		1878.				
2	Tzŭ-ta-ti ..	March 24 ..	Do. ..	Spica W. 102 39·5 / Jupiter E. 102 39·3	102 39·4	See No. 4, below.
3	Do. ..	„ 25 ..	Do. ..	Spica W. 102 27·6 / Altair E. 101 33	102 0·6	Rejected.
4	Na-erh-pa ..	April 7 ..	Do. ..	Sun W. 103 1·2 / Pollux E. 102 26·3	102 43·8	Station No. 2 is six miles west of Station No. 4 by D.R.; the two results may therefore be accepted as substantially correct.
5	Chia-ting Fu	June 19–25	Chronometric difference with Ch'ung-ch'ing	.. ..	104 0	
6	Sui Fu (Sŭ-chou Fu)	„ 21–25	Do. ..	.. ..	104 51·6	Capt. Blakiston has 104° 55′.
		1880.				
7	Ch'ung-ch'ing Fu	June 23 ..	Eclipse of Moon	.. ..	106 50·7	Capt. Blakiston has 106° 50′.

APPENDIX E.

Magnetic Variation.

No.	Station.	Date.	Mag. Var.	Remarks.
		1876	° ′	
1	Yunnan Fu	Mar. 11, P.M.	4 10	Mean: 4° 50′ E.
2	„	„ 12, A.M.	5 30	
		1877		
3	Lu-ku	Aug. 26, P.M.	3 0	Chien-ch'ang Valley: Mean Mag. Var. about 4° 10′ E.
4	Ning-yuan Fu	„ 28, „	4 20	
5	„	„ 29, A.M.	5 30	
6	„	„ „ P.M.	5 0	
7	„	„ 30, „	4 0	
8	Hsio-kao-ch'iao	Sept. 2, „	3 0	
9	T'ieh-hsiang-fang	„ 8, „	4 45	District of Hui-li Chou: Mean Mag. Var. about 5° 10′ E.
10	Hui-li Chou	„ 9, „	5 40	
11	Chiang-chou	„ 12, „	4 25	
12	Lo-po-ti	„ 19, „	6 30	Mountainous region on right bank of Gold River.
13	Ai-chou	„ 20, A.M.	5 15	
14	1 mile N. of Yeh-chu-chai	Oct. 1, „	30 0	
15	San-chia-chai	„ „ P.M.	7 30	
16	Hsin-tien-tzŭ	„ 3, „	4 10	Valley of Gold River: Mean Mag. Var. about 3° 40′ E.
17	Near ditto	„ 4, A.M.	4 0	
18	Ya-k'ou	„ 6, P.M.	3 0	
19	„	„ 7, A.M.	3 40	
20	Near Ching-ti	„ 10, P.M.	3 30	
		1878		
21	Sui Fu (Sŭ-chou Fu) ..	Feb. 14, P.M.	3 0	Min river: Mean Mag. Var. about 2° 45′ E.
22	Tao-sŭ-kuan	„ 24, A.M.	2 30	
23	Lu-lu-p'ing	Mar. 6, „	4 30	
24	On Ma-lieh Mountain ..	„ 13, P.M.	4 35	Region of T'ung river: Mean Mag. Var. probably about 4° 30′ E., with great local deviation.
25	Near Lao-wa-hsŭan	„ 21, „	7 25	
26	Tzŭ-ta-ti	„ 22, „	7 50	
27	Hsiao-ma-chang	April 16, „	4 50	
28	Ta-chien-lu	„ 25, A.M.	8 50	
29	Lu-ting-ch'iao	May 20, P.M.	4 30	

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Edwd Weller, Lith.

II. JOURNEY TO TA-CHIEN-LU, IN 1878.*

CHUNG-CHING, *July* 7, 1878.

I HAVE the honour to report my return from a journey which, originally planned as a mere New Year's holiday, extended, from one cause and another, to Ta-chien-lu. I had started with the intention of making a rough survey of the river between Kiating and Sui-fu (Blakiston's Sū-chow), and of crossing the mountains from the former city to Fu-liu, in longitude 103°. On reaching Fu-liu, however, the country further west held out so many attractions, that I was induced to travel on to Tzu-ta-ti, the head-quarters of a Sifan chief styled "Wang Ch'ien-lui" ("Wang of a 1000 families"). Here I heard of the existence of a mountain track to Ta-chien-lu, and it seemed a pity to miss the opportunity of visiting that famous border town; but I abandoned the project on receiving a hint from the chief that he could not guarantee my safety in so wild a region.

Thereupon I turned back; but at the village of Na-erh-pa, the first stage, I was robbed, during the night, of my travelling funds and of several miscellaneous articles of no great value. This placed me in a very awkward position, especially as the sub-assistant magistrate, who resides a day's journey from the place, failed to take any action in the matter. After giving him fair time to put in an appearance, I sent a messenger to the capital with a letter which he was to give to my old Yünnan acquaintance—the Taotai Ting Shih-ping, or to the Governor-General. The messenger returned in eleven days with a very considerate letter and a loan from the Taotai, and orders came simultaneously from, I presume the Governor-General, directing all the officials within four days' journey of the village to apprehend the burglars. The sub-assistant magistrate hurried to the scene, and I soon found that the culprits were well known to everybody in the village. Only one, however, was ulimately captured, the chief of the gang, warned by his wife, escaping over the mountain.

The magistrate had received such stringent orders to make good my losses that a scheme I had formed of deriving advantage from the misadventure by refusing reimbursement, and insisting that I had nothing for it but to go on to Ta-chien-lu and obtain funds, would not even bear proposal. Very conveniently, however, he could not pay me on the spot, but wished me to wait a few weeks until the money arrived from Yueh-hsi-T'ing. This I altogether declined to do, and the end of the negotiation was, that I offered to travel on to Ta-chien-lu and to receive payment on my return. This concession to his wishes he accepted with alacrity.

Payments of such indemnities are usually made by permanent Committees established for the purpose; but even if the loss fall ultimately on the natives of Na-erh-pa, I see no objection to their realizing the fact that the burglers whom they house in their midst are likely to become as disagreeable to them as they are to travellers.

So I again turn north-west. On the road to Tzu-ta-ti I met two packs of hounds, and discovered that they were sent by the Sifan chief to hunt any robbers in the event of their taking to the forest. Dramatic justice was dealt out to that potentate for his refusal to protect me, by the plundering of his father's grave; when I repassed Tzu-ta-ti ne had gone in pursuit of the marauders.

The country may perhaps be considered unsettled, but the remainder of the journey was impeded by nothing worse than natural difficulties, such as fevers and the extreme ruggedness of the mountain ranges. We quitted cultivation at the

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* Reprinted from the Parliamentary Report, CHINA, No. 2 (1879).

foot of a pine forest, through which we travelled three days, ascending continually until we came to a snowy pass—the only pass in the country which, as the natives say, "hang jên," stops people's breathing. Descending its northern slope we soon found that we had left China behind. There were no Chinese to be seen. The valley was nearly all pasture land, on which were grazing herds of hairy animals, resembling immense goats. These I rightly conjectured to be yaks. On entering a hut, I found it impossible to communicate with the family, even a Sifan, whom I had brought with me, being unintelligible to them; but they were polite enough to rescue me from the attack of the largest dogs I have ever seen, and to regale me with barley meal in a wooden bowl, which I had to wash down with a broth made of butter, salt, and tea twigs. Further on we met a company of cavaliers, armed with matchlocks and sabre, and decorated with profuse ornaments in silver, coral, and turquoise; a troop of women followed on foot, making merry at my expense. A mile or two further, and I came to a great heap of slates, inscribed with Sanscrit characters, whereupon I began to understand that we were in Tibet; for although Tibet proper is many hundred miles west of this point, yet tribes of Tibetan race and language extend right up to the bank of the Tatu river—a fact which I had not been led to expect.

At the foot of the valley we struck the high road from Li-t'ang to Ta-chieu-lu, and I walked into the latter town on the evening of the 23rd April.

I stayed there three weeks, and learned much regarding the condition of the numerous countries included in the general name of Tibet. Inquiries respecting commercial production and distribution occupied most of my time, and I shall have a good deal to report which is interesting and, I think, useful.

We returned to Fu-liu by the high road, and the sub-magistrate of Ta-shu-pu duly paid over the sum of 170 taels, the estimated total of my losses.

From Fu-liu to Kia-ting we followed the by-road by which we had come. I took the opportunity afforded by the arrival of a Lolo chief, who called upon me, to make notes of the customs and language of his tribe. I had previously collected a sufficient vocabulary of one of the Sifan dialects.

From Kia-ting we dropped easily down the flooded current, in six days, to Chung-ching, without encountering a single rapid, and in deep water all the way, making Chung-ching on the 24th June, after an absence of nearly five months.

The information collected during my journeys enables me to report, with some confidence, on the trade and production of Western Ssŭ-ch'uan, and their bearing on the commercial capabilities of Chung-ching. I am preparing a report on this subject, which I propose to supplement with a full account of my explorations.

III. NOTES ON THE ROUTE FOLLOWED BY MR. GROSVENOR'S MISSION THROUGH WESTERN YÜNNAN, FROM TALI-FU TO T'ÊNG-YUEH.*

"When you have left Carajan and have travelled five days westward, you find a province called Zardandan. The country is wild and hard of access, full of great woods and mountains which it is impossible to pass, the air is so impure and unwholesome; and any foreigner attempting it would die for certain."

Thus Marco Polo, in the fiftieth chapter of his second book.

* Reprinted from the Parliamentary Report, China, No. 3 (1878).

We, who had the good fortune, though for most lamentable reason, to follow many of his steps, searched his book page by page as we journeyed day by day; and it is with the view of supplementing his memoirs, and assisting future explorers who may enter the same region, that these few notes are prepared.

That Yachi and Carajan represent Yünnan-fu and Tali, is proved by topographical and other evidence of an overwhelming nature. I venture to add one more proof, which seems to have been overlooked.

If there is a natural feature which must strike any visitor to those two cities, it is that they both lie on the shore of notable lakes, of so large an extent as to be locally called seas; and for the comparison, it should be remembered that the inhabitants of the Yünnan province have easy access to the ocean by the Red River, or Sung-Ka. Now, although Marco does not circumstantially specify the fact of these cities lying on large bodies of water, yet in both cases, two or three sentences further on, will be found mention of lakes; in the case of Yachi, "a lake of a good hundred miles in compass"—by no means an unreasonable estimate.

Tali-fu is renowned as the strongest hold of Western Yünnan, and it certainly must have been impregnable to bow and spear. From the western margin of its majestic lake, which lies approximately north and south, rises a sloping plain of about three miles average breadth, closed in by the huge wall of the Tien-tsang Mountains. In the midst of this plain stands the city, the lake at its feet, the snowy summits at its back. On either flank, at about twelve and six miles' distance respectively, are situated Shang-kuan and Hsia-kuan (upper and lower passes), two strongly fortified towns guarding the confined strip between mountain and lake; for the plain narrows at the two extremities, and is intersected by a river at both points.

Shang-kuan we had no time to visit. Hsia-kuan, built on a river to which it gives its name, is circled by a labyrinth of walls. One long arm of masonry even follows the right bank of the river into a gorge through which the high road passes, and there finds an appropriate terminal in a solitary tower of native rock. These two outflanking fortresses constitute the strength of Tali-fu.

That city is a more or less regular square of one mile and a quarter, surrounded in the usual manner by a high wall backed with earth. Of itself it is neither stronger nor weaker than other Chinese cities; but so long as Shang-kuan and Hsia-kuan are held, it is unapproachable except by the snowy passes in its rear. It was by these passes, we were told, that the Mohammedan insurgents succeeded in capturing the place. The long, narrow plain—some eighteen miles by three—celebrated as the most fertile rice ground in Yünnan, affords the garrison and people an abundant harvest of provisions, and the lake never fails to supply a plentiful tribute of excellent fish.

The fish of Chinese lakes and rivers are generally very insipid and unappetising, a fact which is usually attributed to the muddiness of their native waters. But the streams and meres of Yünnan are remarkably clear, with gravelly bottoms. The tastelessness of the fish is more probably to be accounted for by their being kept alive in impure and unchanged water until their sale to consumers.

A visit to Tali-fu entails a deviation from the main western road, and we were met (exactly as was the experience of our poor friend Margary) with objections on the part of the authorities to our branching off to their city.

The Chinese seem or pretend to be incapable of understanding the restless curiosity of foreigners who waste their time in exploring regions to which their business does not necessarily conduct them. In such cases we never paused to discuss matters; we stood not upon the order of our going, but went.

All before us was now a land of mystery. Margary had indeed traversed it, but

his journal stops short two days before reaching Hsia-kuan. The continuation was no doubt carried off by his murderers; it is clear that they would have hastened to destroy documents which might have contained an intimation of expected foul play.

Is the Tali range snow-capped? was a question often discussed by us. Margary himself, who had passed several days in full view of those forbidding heights at much the same season as ourselves, observed no snow, and even ridiculed the supposition of its existence in conversation with Colonel Browne; on the other hand, Mr. Garnier, an explorer of the highest authority, describes the chain as "couverte de neige pendant neuf mois de l'année."

At the station before Hsia-kuan, from which place the heights are not visible, one of our party made careful inquiries about the duration of the snow. His informants, some of whom had crossed the passes, laughed outright at his scepticism, and told him that on reaching Hsia-kuan next morning he would find snow hawked in the streets, that the snow rarely melted in the summer, and that a bad harvest and many diseases invariably followed its disappearance. On rounding a spur of the hills which wall in the southern end of the Tali valley, we came abruptly into full view of the western range, rising and receding into black saw-like peaks, the summits of which, sheeted with brilliant white, seemed nearer and more real than the lower mass of the mountain. There seems no reason to doubt the statement that the Sierra is generally snow-capped all the year round, but only slightly so during the hot months.

I am not aware what is the line of perpetual snow in this latitude (25° to 26°); but we were satisfied that the heights towered from 7000 to 8000 feet over us, raised as we already were 7000 feet above the sea-level.

The range is, in character, what Mr. Garnier calls it, a "chaine," ruggedly serrated, but with no very prominent peak. The highest point, as it seemed to us, lay about north-west of the city.

The view given in Mr. Garnier's work depicts very fairly the general appearance of the range, but the colour is unsatisfactory, and from the southern end, at which we entered the plain, the mountain mass bears a much bolder and grander proportion to the breadth of the lake.

Although now within a few hundred yards of that glorious sheet of water, we were at first much puzzled at not seeing it, the explanation being that a slight undulation of level, not apparent to the eye, intervened, over which the sight passed immediately on to the opposite hills without being conscious of the interval, just the same illusion, in fact, that is often taken advantage of by scene-painters. The road here lies through a weary bed of sand and shingle, but the traveller is cheered by a charming view of Hsia-kuan, glistening white at the mountain foot.

Shortly before reaching that town, we passed a family on their way to the quarterly fair of Tali; they consisted of a man, two women, and a child. The man was a wild-looking copper-coloured creature, somewhat resembling a Mongol, clad in a single sack of very coarse woollen cloth, wretchedly poor, but cheerful notwithstanding, and disposed to be communicative. But as he had made even less progress in the Chinese tongue than ourselves, knowing in fact little more than the numerals, interchange of ideas was attended with occasional difficulty. All we could elicit from him was that he came from Kutung, or was a Kutungman.

We had previously met people of the same description engaged as conductors of caravans, but neither we nor our Chinese following ever succeeded in understanding them, nor could we obtain any information from officials nor people regarding them, except that they were Kutungmen. What or where Kutung is, I have not to this moment any idea. The men are of a dark reddish complexion, with rather

prominent features, above the average height, and well proportioned, dressed in close-fitting woollen garments, which in some cases we observed to be neatly cut and handsomely embroidered. The Chinese have not acquired the art of spinning and weaving wool, and the clothes of these people never came, it is evident, from a European loom.

The two women, aged about twenty-five and seventeen years respectively, at once arrested our attention. I have the authority of my two companions for stating that they would have been considered handsome anywhere. Paler in colour than the man, their oval and intelligent faces instantly reminded us of the so-called Caucasian type; and in every step and movement there was a decision and exactness widely different from the sluggish inaccentuation of the Chinese physique. The younger was particularly remarkable for a peculiarity of her long hair, which was naturally wavy, or "crimped," a feature which is never met with among the Chinese. While watching these people, I felt in the presence of my own race.

Their straight and shapely forms, ill-concealed by a very short and scanty gown, their sympathetic demeanour, their poverty, and their presence with ourselves in a strange land, may possibly account for the interest my two companions evidently felt in them.

The river which relieves the excess of the lake at its south-west foot is not visible from the road until one is in the act of crossing it in Hsia-kuan. We breakfasted in the suburbs of that town without having succeeded in discovering its stream, and in fact we began to feel incredulous of its existence, especially as the rivulets we had passed all ran towards the lake. But shortly after starting again, we crossed, by a fine arched bridge in the centre of the town, a clear and winding stream about 35 yards in breadth. So slow was the current, that we could only detect its direction by noticing the inclination of the water-weeds.

Snow from the mountain-top was being offered for sale, and we celebrated the event by iceing the last bottle of our dozen of champagne. The said vintage was designed for the purpose of entertaining native officials, but it is to be feared that our hospitality was, on occasions, not altogether disinterested.

We bought here for a dollar two pairs of magnificent Amherst pheasants, which we confided to our taxidermist.

Through a long paved street, up a steep incline, we quitted Hsia-kuan and entered upon the slope which rises from the margin of the lake to the mountain spurs. The land here is thickly cultivated, principally with rice, for which crop it possesses a great reputation.

We were told that before the Mohammedan insurrection the route from Hsia-kuan to Tali, about 9½ miles long, was one continuous street; but this does not seem probable. The traces of Mohammedan and Imperialist destruction are very distinct. Temples and houses still lie where they fell. But such ruins were not very frequent along the roadside. Still the place must once have been wealthy and populous, as is proved by the massive stone bridges, often of luxurious and superfluous size, spanning the numerous torrents which run down to the lake.

The fine trees which once adorned this slope have, with a few lone exceptions, disappeared. The idols lie in fragments beneath the ruins of their desecrated shrines. One temple alone, about six miles from Tali, relieves the monotony of ruin and desertion; it is new built and indeed uncompleted, having been lately erected by Ts'en, the Governor, and the Generalissimo Yang-yü-k'ê. The usual miniature pond with gold fish, complete, is shadowed by the conventional toy bridge and willow-pattern balcony; but the effect is pleasing enough, the fine white marble of the Tali quarries furnishing the materials.

We passed a pleasant hour of rest in this temple. The commandant of our

Chinese escort—whose name, by the way, translated according to the approved method of Abbé Huc, is not inappropriate to his profession, "Hill-echoing Thunder"—narrated to us how he conveyed with exceeding difficulty four foreign guns ("pièces de cinq" only, as we ascertained from a missionary) over the rugged route from Yünnan-fu, and how the capture of the city was to be attributed solely to his own exertions. One gun was irreparably damaged *en route*, but the surviving three laid and pointed by himself, according to his account, terminated the rebellion. There seems no doubt that these guns, cast by French workmen in Yünnan-fu, were really the main cause of the Mohammedan surrender.

General Thunder told us, what was subsequently confirmed, that when the Mohammedans had surrendered and given up their arms, Tu Wên-hsiu, the so-called "sultan," came into the camp of the besiegers, borne in a sedan chair, and inquired for Ma, the Imperialist commander. Being introduced to his presence, he begged for a cup of water, which being given him, he said, "I have nothing to ask but this—spare the people" ("Shao-shajên"). He then drank the water, and almost immediately expired. It appears that he had taken poison, which was suddenly brought into action by the water. His head was immediately cut off and exposed, and, heedless of his prayer—probably the most impressive and pathetic ever uttered by a dying patriot—the victors proceeded to massacre the helpless garrison and townsfolk.

The greater part of the able-bodied men, no doubt retaining some of their arms, succeeded in escaping; but a number of unresisting people, principally old men, women, and children, fled from the city into the rice-fields which border the lake. Hemmed in by the Imperialist pursuers, they entered the water, into which they retreated further and further; and being still pressed, were either forced out of their depth by the crush, or sought a refuge from worse ills in a voluntary death. The number of those who perished in this way has probably been greatly exaggerated. The foreign press put it at from 3000 to 9000. General Thunder, undoubtedly an eye-witness, and probably a participator, told me, as we sat in the sunny verandah of the temple overlooking the scene of these horrors, that he did not think there could have been more than 500 corpses, or "the water would have stunk more." The gallant general was of opinion that Tu Wên-hsiu was a good and conscientious ruler, and respected even by his Imperialist foes; but for the Moslems generally, he professed much contempt.

We were now in full sight of Tali-fu, as unpicturesque a city as any in China. The ruins of an extensive suburb line the approach to the south gate, but within the walls we saw little trace of destruction. We found lodging in a caravanserai of more than average dampness and discomfort, which had been the scene of a horrible episode of massacre; nearly 1000 Mohammedan partisans (all our informants agreed in the number), mostly men who had laid down their arms, were here pent up by the Imperialists and deliberately butchered. The inn is reported to be haunted by their spirits, and consequently drives a very poor business. Future visitors will easily identify it by its situation near the fish market, in the central part of the town.

Tali is only in part inhabited, and that not thickly. We did not succeed in finding a single large shop. But about a mile outside the west gate the quarterly fair (*yueh-kai*) was being held, presenting a very animated scene. Some 5000 people, many of them non-Chinese, were present, and good order is evidently maintained, as valuable wares are exposed with security. In the thick of the throng we met our friends of Kutung, and many other outlandish folk. Lolos were rubbing elbows with people from the Shan districts, and Tibetans, the dirtiest race we had ever seen in this land of dirt, where most of the matter is in the wrong place, were chaffering with sleek Cantonese. A Fakir with a praying machine, which he twirled for the

salvation of the pious at the price of a few cash, was at once recognised by us; he was our old acquaintance, the Bakhsi, whose portrait is given in Colonel Yule's 'Marco Polo.'

At the upper end of the fair we found many varieties of goods from Tibet exposed for sale; among others a very stout description of serge, obviously not Chinese, of which a specimen will be found in the trade collection, and an endless exhibition of the "omnium gatherum," generally known as Chinese medicines. Enormous dried centipedes, tied up in bundles, were in much request.

Very few Manchester goods were seen, although the fair is chiefly a market for clothing materials. We observed Russian broadcloth, and the commercial motto of Sweden, "Utan fosfor och svafel," was prominent. The greater part of the goods and traders seemed to come from Canton, and the few foreign goods probably found their way from that city.

The lower part of the fair was occupied by lodging booths and restaurants bordered by stalls, on one of which it was interesting to find a copper knife and a stone celt. I purchased both for a few cash. The knife is undoubtedly genuine; the celt, called locally, and indeed all the world over, "thunder-stone" (*lei-ta-shih*), bears traces of sharpening on the axe-edge, and is well adapted for use; but as these objects are now employed as charms on account of their supposed supernatural origin and properties, and as there is a brisk demand for them, it is difficult to satisfy oneself of their authenticity. The original type would, however, be retained, and it is curious to observe how perfectly this exemplar agrees with European forms.

We met with a considerable stock of silversmith's work and jade carving. The cost was much greater than in Eastern China, but, nevertheless, sometimes several articles for which we bargained were sold to natives for higher prices than we had considered reasonable, arguing that there must somewhere be more wealth than we found signs of. We noticed some very handsome lime-boxes of silver filigraine work.

In Western Yünnan the betel-nut is chewed with prepared lime, colouring the teeth red and causing a profuse expectoration. We first met with the practice near Tali-fu. In fact, we had been for some days importuning our geologist to account for certain red streaks on the roadside rocks. His explanation was plausible enough: some people can explain anything, but he was soon found out.

Is it not possible that the red colour imparted to the teeth by the practice of chewing betel with lime may go some way to account for the ancient name of this region, "Zar-dandan," "Chin-ch'ih," or "golden teeth"? Betel-chewing is of course common all over China; but the use of lime is almost unknown and the teeth are not necessarily discoloured.

In the neighbourhood of Tali one comes suddenly upon a lime-chewing people, and is at once struck with the strange red hue of their teeth and gums. That some of the natives used formerly to cover their teeth with plates of gold, from which practice, mentioned by Marco Polo and confirmed elsewhere, the name is generally derived, can scarcely be considered a myth; but the peculiarity remarked by ourselves would have been equally noticeable by the early Chinese invaders, and seems not altogether unworthy of consideration. It is interesting to find the name "Chin-ch'ih" still in use.

When Tu Wên-hsiu sent his "Panthay" mission to England with tributary boxes of rock from the Tali Mountains, he described himself in his letter "as a humble native of the golden teeth country."

The word Panthay has received such complete recognition as the national name of the Mohammedan revolutionaries in Yünnan that I fear it will be almost useless to assert that the term is utterly unknown in the country which was temporarily under

the domination of Sultan Suliman, otherwise Tu Wên-hsiu. The rebels were and are known to themselves and to the Imperialists by the name of Hui-hui, or Hui-tzu (Mohammedans), the latter expression being slightly derogatory.

The name of "sultan," utterly foreign to the ordinary Chinese, was never applied to their ruler, except perhaps by the two or three hadjis among them. The name "Suliman" is equally unknown. The Mohammedans of Yünnan are precisely the same race as their Confucian or Buddhist countrymen; and it is even doubtful if they were Mohammedans except as far as they professed an abhorrence for pork. They did not practise circumcision, though I am not sure if that rite is indispensable; they did not observe the Sabbath, were unacquainted with the language of Islam, did not turn to Mecca in prayer, and professed none of the fire and sword spirit of propagandism.

That they were intelligent, courageous, honest, and liberal to strangers, is as certain as their ignorance of the law and the prophets. All honour to their good qualities, but let us cease to cite their short-lived rule as an instance of the "Great Mohammedan Revival."

The rebellion was at first a question of pork and of nothing else, beginning with jealousies and bickerings between pig butchers and the fleshers of Islam in the market places. The officials who were appealed to invariably decided against the Mussulmans. Great discontent ensued and soon burst into a flame.

The first outbreak seems to have originated among the miners, always a dangerous class in China, who were largely composed of Mohammedans. The usual measures of exterminative repression were adopted by the officials; their Confucian hostility against any faith or society which possesses an organisation novel to or discountenanced by the Government, was aroused; a general persecution ensued; the Mohammedans made common cause, excited, it is very possible, by their travelled hadjis; and so began the period of disorder and disaster with which we are acquainted.

Regarding the faith of these unfortunate people, Dr. Anderson writes, "Our Jemadar frequently lamented to me the laxity that prevailed among them, and my native doctor held them in extreme contempt, and used to assert that they were no Mussulmans."

As regards the illogical atrocities which the Chinese official mind justifies, one anecdote will suffice.

A few weeks before our arrival at Yünnan-fu, a rising occurred in the north of the province, occasioned by the extortionate proceedings of a prefect. The insurgents committed no outrages, but simply assumed an attitude of protest. The movement was suppressed with curious suddenness, and we were fortunate enough to meet the military officer who had restored order On being congratulated on his success, he replied, "Yes, they were harmless people, and not in the least to blame. I only had to kill a few ('pu-kuo-shao-ti-sha'), and the affair was over."

We strolled several times up and down the main street of Tali. For a Chinese street it is a wide and not uncleanly avenue, but the houses are very mean. The most remarkable sight was the market-women belonging to some non-Chinese race, who came in from the country with fish and provender for baggage animals. They would be pronounced comely if it were not for their dreadfully excoriated bare legs. We observed the same women and the same legs at Yünnan-fu.

In the street near the north gate were two curious objects, the use of which we could not satisfactorily ascertain. They were made of bronze, well cast, and resembled howitzers, but had no trunnions, nor, as far as we could find, any rudiment of a touch-hole. Moreover, they seemed so thin that it would have been dangerous to fire them. They were about 8 inches in diameter at the muzzle, and perhaps 6 inches in bore, being some 4½ feet long, and were not supported on

carriages, but laid in cages with their muzzles elevated towards the gate. They are probably the guns which protected the gateway of Tu Wên-hsui's palace during the rebellion, and were intended to fire grape, but how they were to be fired remains unexplained. It is, however, possible that they have been carefully and accurately spiked without leaving any trace of the operation. The dimensions are from memory.

On the 15th of April we returned to Hsia-kuan. Leaving the town the next morning, and following the left bank of the river which issues from the lake, we were surprised to find that rather imposing stream, which seems almost navigable, suddenly plunge under a natural bridge of rock, and become a rushing torrent.

That a boat once came up the Mekong and entered the lake by this branch, as local tradition has it, is clearly fabulous. About a mile from Hsia-kuan the route enters a gorge by a massive gateway, part masonry and part rock, which forms a fit portal to the majestic scenery it guards. The precipitous mountain sides are at first bare and rugged, but an hour's walk along an easy road brings the traveller into a well-wooded region. At 2½ miles from Hsia-kuan, the hamlet of Fang-tzu-pu is reached, remarkable for its hot spring. The route traverses the mountain side at a considerable height above the river, but descends again to its level immediately after passing Shih-ch'uan Shao, 5½ miles.

So far, there is very little cultivation, the way being a mere mountain pass; but, on approaching the scattered huts which comprise Mao-t'sao-t'ang, 7½ miles, a wheat crop was observed, and further on the inevitable poppy-field.

The route now becomes densely wooded, and coasts along the river through pleasant glades of walnut trees. The 40 yards' breadth of clear stream which lingered through the sands of Hsia-kuan here appears a sheet of foam 10 yards broad, surging over enormous boulders. It is easily crossed by bamboo bridges in several places; but, as our midday stage, the hamlet of Hsiao-ho-chiang, was already in sight, we followed a roundabout path, and gained the other bank by means of a tree which a freak of nature has made to grow horizontally over the torrent.

Hsiao-ho-chiang is 9¼ miles from Hsia-kuan. The local estimate is 45 *li*, but it is nearly impossible to obtain any even approximately exact idea of distances in these regions from the Chinese. We heard, for instance, with incredulous ears, that the distance between two places depended upon which end one started from; and all the informants, separately questioned, would give much the same differential estimate. Thus, from A to B would unanimously be called one mile, while from B to A would with equal unanimity be set down as three. An explanation of this difficulty, offered by an intelligent native, was this: carriage is paid on a basis of so many cash per mile; it is evident that a coolie ought to be paid at a higher rate if the road is uphill. Now it would be very troublesome to adjust a scale of wages rising with the gradients of the road. It is much more convenient for all parties to assume that the road in difficult or precipitous places is longer. This is what has been done, and these conventional distances are now all that the traveller will succeed in ascertaining.

"But," I protested, "on the same principle, wet weather must elongate the road, and it must be further by night than by day."

"Very true, but a little extra payment adjusts that."

This system may be convenient for the natives, but the traveller finds it a continual annoyance.

The scale of distances is something like this:—On level ground one statute mile is called two *li*. On ordinary hill-roads, not very steep, one mile is called five *li*. On very steep roads one mile is called 15 *li*. The natives of Yünnan, being good mountaineers, have a tendency to underrate the distance on level ground, but there

is so little of it in their country that the future traveller need scarcely trouble himself with the consideration. It will be sufficient for him to assume five local *li*, except in very steep places, as being one mile.

From Shih-ch'üan-shao to Hsiao-ho-chiang there are two routes, one on either bank. That on the left is preferable.

While at tiffin we received a deputation from Ho-chiang-pu, the village at which we intended to pass the night, entreating us to stay where we were. It was a very great distance to that place, the road was almost impassable, the inhabitants were very turbulent, and suffered from an infectious plague, and the village was so small that we should be unable to find food or lodging. We possessed, however, sufficient experience of the "splendid mendacity" of the Chinese to make us feel satisfied that these stories were fiction, and we were accordingly not in the least surprised when, after strolling a mile along an easy path, we were greeted with the smiles of the healthy-looking villagers of Ho-chiang-pu (10½ miles). The object of the deputation was made evident when we discovered that a subordinate Chinese official was also putting up at the village. He no doubt feared that we should occupy the best quarters, and his apprehensions were realised.

Ho-chiang-pu ("the meeting of the waters") is an inconsiderable walled village, protecting the western entrance to the pass which we had been threading. It occupies a lovely situation near the junction of three torrents, the Hsia-kuan river, the Ch'üan-chiao, and the Yang-pi, whose combined streams flow on, keeping the name of Yang-pi, to join the Mekong. The Ch'üan-chiao river takes its name from a stone bridge which we shall shortly cross. The Hsia-kuan river is also called the Ho-chiang.

The village boasts two or three tolerable inns, and would be a most convenient centre from which to explore this interesting region. The four valleys traversed by these three streams and their continuation, afford every variety of mountain scenery, from the undulating thickly-wooded hills near the village to the snow-tipped "horns" and "teeth" of black rock which overhang the town of Yang-pi.

To this place we must hasten. Issuing from the village, we seem about to plunge into a dense forest; but this ceases on the margin of a triangular cultivated patch about half a square mile in extent, at the junction of two of the streams. Inclining to the north an execrable road dips into a gully, and we soon cross the Ch'üan-chiao bridge over the stream of that name, at the mouth of a magnificent glen. The torrent rushes joyously along between mountains of inaccessible steepness, which are clothed to the very summit of the precipices with flowering or bright-leaved woods. The snowy peaks which crown the whole are not visible from this point, but the consciousness of their awful dominance is always present.

We passed no nook in our whole journey across China more worthy of close exploration than this; and we are confident that the traveller of the future will record a debt of gratitude to us for having pointed it out. It will lead him to the inmost heart of the range by what appeared to us a very practicable path. The range possesses a sacred and emblematic character. The envoys sent by the "Panthay" Sultan in 1871 carried with them pieces of rock hewn from the four corners of the mountain, as the most formal expression of his desire to become feudatory to the British Crown. Our unsentimental Foreign Office, blind to romantic symbolism, would not suffer them to be extricated from the bonded warehouse of the Customs; yet it seems unlikely that the tariff includes among forbidden imports the sacred rock of the golden teeth.

To our exceeding depression we are only permitted a passing glimpse of this paradise, and must continue our inexorable way across a wooded spur to the hamlet of Chi-i-pû (12 miles). The valley we are now ascending is much less verdant, and the inclosing hills lower, but we have scarcely recovered from our late disappointment,

when, after passing Chin-niu-tun (13¾ miles), a mere hamlet, an opening on our right suddenly reveals the central snowy sierra.

Replete as this mountain system is with surprises, no contrast is so striking as here meets our gaze. At the foot of a rift in a wall of dark rock, apparently 600 or 700 feet in height, but possibly much more, vegetation suddenly ceases, and between the vertical sides of the chasm issues a torrent from the very feet of the giants within. The eye in vain attempts to penetrate the interior gloom of this gulf, which is probably not more than two miles distant from the road, and easily accessible. The contrast between the sudden black mass of rock and the green and gradual slope which approaches it, utterly confuses all perception of distance; the shadows thrown by the pinnacles and crags above deepen the obscurity, and the sight ascends, helpless and hopeless, to the final contrast of the dazzling snows. It is an absorbing scene; but our instructions are to travel with all despatch. We hurry on with many a backward glance, and a vow that these murky gates shall one day open to us.

The road at this point is worse than ever, being in one place the bed of a torrent with no stint of water. The valley gradually broadens, or rather the floor rises, until an uninviting down, broken by sandy gullies, has to be ascended. T'sao-hsieh-p'u was the name of the place at which we expected to find tiffin awaiting us, but we searched in vain for Tsao-hsieh-p'u. We heard afterwards that a hamlet of that name formerly existed, but had been deserted from want of water; it was strange how utterly the habitations had disappeared.

After a halt of two hours at Ma-ch'ang (15¾ miles) a circuitous route leads us round an elbow of the river and we soon catch sight of the town of Yang-pi, a fortress of great importance, as Chinese fortresses go, guarding a pass over the mountain by which the rear of Tali-fu can be gained. This pass is officially closed during six months of the year, but is frequently crossed by contrabandists who know every detail of the range. The Chinese officials draw very little distinction between smuggling and brigandage, the penalties being practically the same for both derelictions; it follows that a smuggler often develops into a brigand, and as a consequence all mountain ranges and border lines have the reputation of being infested by robber bands. Thus, by an easy transition, the heavily taxed people take to smuggling, smugglers become bandits, bandits become rebels, and when occasion serves, whole districts are in revolt.

The little town of Yang-pi has often played an important part in the repression of such disorders. After the capture of Tali-fu about 2000 Mohammedans, we were told, took refuge in the mountains, but the approaches to Yang-pi being secured by its garrison, they were unable to descend, and most of them perished of cold and starvation in the upper passes. Viewed from this side, the town is very picturesque, being broken by the necessity of its situation into two divisions on different levels about half a mile apart, built in the midst of a curious convolution of water. The entrance to the lower town (Hsia-ch'êng, 19¾ miles) is very strongly guarded by high loopholed walls, between which the road passes for some fifty paces before the place is entered.

To the north the spurs of the Tali mountains break into a number of low plateaux, among which the Yang-pi river winds, apparently taking its rise away in the north-west, and not in this range. It is represented in all maps as a bifurcation of the Mekong; but in so mountainous a country one is loth to believe that rivers can divide in this way.

The valley of the Yang-pi, to judge from the latest native map (which we found very trustworthy as regards names, though inexact in positions) is continuously populated up to the point where it diverges from the Mekong, near a village called

Hsiao-tien, whereas the Mekong valley is depicted as being almost uninhabited. It would, therefore, seem that the easiest way of reaching the Upper Mekong is by ascending the former valley.

The Yang-pi river, after receiving the two streams at Ho-chiang, ultimately rejoins the Mekong. Its name, locally pronounced Niang-pi, has an un-Chinese sound, and the elaborate characters used in writing it give one the impression that they were specially invented for the purpose. It is probably, like many others, an indigenous name, which was in use before the Chinese occupation.

We passed the night comfortably enough in a hostel in the lower town. This, like many houses in Yünnan, possessed an upper story. The houses are often built entirely of wood, and the upper room, generally clean and fresh, is in some cases 45 feet long, and of proportionate breadth. A better lodging in mild weather could scarcely be desired. The tax-office (*Lekin*) was usually the newest and most conspicuous edifice in every village, and we passed many a night in those well-abused institutions.

A mountain rill runs down the side of the main street of the lower town, and in one place forms a convenient shower bath, a hint for which the future traveller will be grateful, as well as for the information that the lower town affords better lodging than the upper. We were fortunate in procuring some fairly good tobacco here—our supply had given out at Tali-fu—and the recovered pleasure yielded an additional zest to the prospect of the star-lit mountain snows.

The discomfort of travel in these regions is no doubt very great; but, on the other hand, the foreigner will meet with at least one agreeable compensation, in being able to pass to and fro without being pestered by the curiosity of impertinent rowds. We strolled about the cities and villages with perfect freedom and convenience often in crowded places such as the fair at Tali, without attracting much notice from the bystanders. This is no doubt to be attributed in some degree to the presence of so many non-Chinese races in and around the province. Burmese, Tungkingese, Shans, and a host of petty tribes, are familiar to the people of Western Yünnan, and we were no doubt confounded with one or other of these.

The abusive term, "foreign devil," seems unknown in Ssŭ-ch'uan and Yünnan; we were assailed with it for the last time at the foot of the first rapid above Ichâng. The natives of Ssŭ-ch'uan have a superstitious objection to pronouncing the word *Kuei* (devil). "Talk of the devil, he's sure to appear," they argue. We met with the same feeling against ill omens on the high plateau north of Yünnan-fu, a region swept by desolating winds, which make it in places almost uninhabitable. By a similar logical process the storm-swept natives have banished the word "wind" from their vocabulary, and substituted an expression which literally means "the waves are blowing." Our humourist remarked that this was merely another instance of the curious inversion of thought and custom which Europeans so often meet with in China; for there are Western countries, the natives of which are willing to employ almost any language for the purpose of raising the wind.

Yang-pi has no legal right to be called a town, being under the jurisdiction of only a sub-assistant magistrate (Hsün-chien), and a lieutenant (Pa-tsung).

Next morning, the 18th April, we crossed, by a dilapidated wooden bridge, the small stream which divides the town, and passed through the upper division (Shang-Chêng). We found it dirty and meanly built; very different from the promise our first view of it held out. An iron suspension bridge, 43 yards in span, takes us over the river, and we enter a bare valley, at the head of which is the village of Pei-mên-pú (22 miles), consisting almost entirely of new houses, or houses in process of construction. The situation is at the foot of a very steep ascent. It is noticeable that villages are often built in such positions, showing that the inhabitants make their

living by supplying the wants of wayfarers. In this spot, at any rate, there is nothing else to create a population.

The region we were now entering may be seen, by a glance at any map, to be perhaps the least populated of any in Western Yünnan. For a considerable distance in every direction there is not even a village worthy of the name. After climbing the steep ascent above Pei-mên-pú, we overlooked, on either hand, an interminable system of parallel ranges, covered with jungle and small timber. The ridge was soon crossed, and as we descended in a south-west direction into a narrow valley, the rivulets soon began to issue from the hill-side and combine until, in a very few miles, we found ourselves accompanied by a mountain torrent. Ch'ing-shiu-shao, a miserable hamlet (27 miles), afforded us tiffin, and T'ai-p'ing-pú (20½ miles), a mere cluster of huts, lodging for the night.

We were beginning to weary of the "everlasting hills" after having traversed several hundred miles of them. There was no object in making longer stages than we did, as we were now in communication with our Political Agent at Bamô, and had been informed of the date on which our escort of 300 British bayonets was due at Manwyne.

Next morning an unexpected steep had again to be surmounted. We reached the summit breathless and steaming with heat, though the temperature in the shade was only 64°; but we were rewarded by finding ourselves on a ridge, from which a magnificent prospect was obtained of the undulating ocean of hills on every side. The gradients on this route are often of the most exasperating steepness. The path seldom condescends to zigzag up a slope until it becomes absolutely impossible to ascend it otherwise; and the limit of possibility is so nearly touched in many places that the ascent has to be charged—taken with a rush—on pain of slipping back. Here and there, in a seemingly purposeless manner, the route descends from a ridge, runs a mile or two along a valley, and then appals the wayfarer by mounting again up the very same ridge. But there is a reason for this apparently eccentric deviation. The traffic must pass through the villages, and the villages must be situated near water; the road, therefore, adapted to these exigencies, dips on occasion to the bottom of the valleys.

The wide-spreading banyan trees which crowned the ridge we had attained formed a shady halting place, from which we watched our unfortunate coolies, burdened with some 70 lbs. weight, toiling with frequent pauses up the dusty slope, often sliding back, and gladly availing themselves of branches and shrubs as a *point d'appui*.

From this spot we descried a bright stream, large enough to be called a river, flowing down a valley on our north-west. This valley is said to produce much of the gold for which Yünnan is famous; but the whole district seemed to us almost uninhabited.

The route continues a short distance along the ridge, and then descends again through fine glades to the stream we crossed at starting. We run merrily down the slope to the hamlet of Niu-p'ing-pú (34¼ miles), and thence follow the stream until our path is barred by the river above mentioned. A large cotton caravan was waiting on the floor of the valley for more carriage. The first half of the cavalcade had just passed. The head of the leading mule was completely hidden in an elaborate ornament of coloured wool and silver buttons, and plumed with a *panache* of the tail feathers of the Amherst pheasant. All the succeeding animals we saw, some twenty in number, bore aigrettes of the same description. We encountered eight or ten caravans with the same insignia, and seeing that it takes several tails to form a plume, there must be good shooting somewhere. The whole turn-out was very well appointed, and caparisoned with a luxury far beyond the requirements of the route.

The swagger of the well-dressed and well-fed muleteers was also new to us, and new it seemed to them to have to yield the crown of the causeway to outlandish foreigners, who they found could on occasion assume the devil-may-care swashbuckler as well as themselves.

The trade of this region, chiefly cotton and opium, is almost monopolised by two merchant princes—Yang, the Generalissimo of Western Yünnan, and his Majesty the King of Burma. The former appears to take the lion's share, and it was one of his caravans that had just passed. His conductors, disbanded braves, notorious for their high-handed conduct, are the dread of the inoffensive villagers, and no one ventures to deprecate their exactions.

The Generalissimo himself enjoys a reputation of no common order; but as he was courteous and even hospitable to ourselves, it may be well to give him the benefit of the doubt, and to assume that scandal has exaggerated his failings in crediting him with all the qualities of Barabbas and Blue Beard. He is beyond doubt the richest and most influential man in Yünnan, and if the province is opened to trade, we shall probably have close relations with him. Shanghai was favoured by a visit from him two years ago, when he did us the honour to abduct a native damsel from our midst, and escaped his pursuers by the unromantic but simple device of hiring an omnibus.

A sudden turn to the right brought us to a very dilapidated suspension bridge (36½ miles) over the river, an insignificant stream easily forded during winter, but as the bridge indicates, swelling to an imposing volume at other seasons. The Shan-pi, as it is locally called, will not be discovered on any map. It was at the time we passed it the clearest of streams, about 30 yards broad, flowing with an easy current in a gravelly bed from the heart of the hills. A well-made road coasted its right bank, and as good roads are not made without some extraordinary reason in China generally, still less in Yünnan, I ascended it for a short distance, but without meeting a single person or habitation. We were told that the road was for the convenience of gold-diggers; the future traveller, with more time at his disposal, may decide the question. At many points of our journey, and notably in this neighbourhood, we lamented our inability to remain a few days and explore its attractive recesses. The natural charm of these glens is heightened by the fact that their secrets are unknown except to their own sphere of population. We follow the right bank at some elevation above the stream, and enter a curiously labyrinthine region, in which the river abruptly doubles back round a narrow peninsula of hill and then disappears into a very mountainous country on its way, no doubt, to the Mekong. After descending into a deep and dangerous hollow, apparently the bed of an ancient lake, we again mount up to the road which makes a detour round the chasm, and soon reach Huan-lien-pú (38¾ miles), a poverty-stricken and half-ruined hamlet.

The next day, 20th April, is again one of the severe hill work. A gully down which a small stream trickles to the Shan-pi is first crossed, and then a most formidable hill, "Chiao-kou-shan," temple-crowned and grove-clad, so steep as to be inaccessible from the eastern side, has to be worked round and taken in reverse. The road then follows a ridge between two deep valleys and becomes easier, still, however, rising. We pass the two hovels, which are called Pai-tú-pú (43½ miles), and the ruined temple of Wan-sung-an (45½ miles), and at Tien-ching-pú (47 miles), when we stop for the night we have reached an elevation of 8600 feet, being 3300 feet above the level we quitted in the morning.

The converse descent had to be accomplished next day; the western slope becoming gradually less wooded and at last completely bare. This condition is generally noticeable beyond Tali, and may perhaps be attributed to the influence of the winter winds which seldom vary more than from west to south-west. We were still traversing the

same almost deserted region. A moderately easy path led us through Sha-sung-shao (48¾ miles), a hamlet of five huts, Mei-hua-pu (50¾ miles), consisting of a couple of huts, and we halted at midday in one of the two sidings which constitute Ping-man-shao. The hill-sides at this point are dry and sandy, but there is no lack of water in the courses. The contrast between the eastern and western slopes is very striking.

Descending a rough and fissured ravine, we issued on to the plain of Yung-p'ing, which does not exceed three miles in breadth, and is perhaps nine miles long. It is to all appearance abruptly closed in at both ends, but there is probably an exit towards the south along the stream, which disappears through a pass in that direction.

The city of Yung-p'ing was dimly discernible through the haze at about three miles' distance. It seemed of small extent, and we were told that the slight importance it possesses is rapidly yielding to the large village of Ch'ü-tung at the southern end of the valley. The chief authority of Yung-p'ing, a magistrate, is generally to be found at Ch'ü-tung. Besides these two places, four or five hamlets, mostly in ruins, dot the plain, of which certainly not more than half is under cultivation.

The neighbourhood of Ch'ü-tung (58¼ miles) is a little better than a marsh, through which flows the stream above mentioned, some 12 yards broad, and where we forded it scarcely a foot deep. It no doubt enters the Mekong, receiving on its way many accretions, one of which runs through Ch'ü-tung.

A little beyond the ford we encountered a pitiful indication of the misery which Tartar misrule and Mohammedan rebellion have brought upon the country. By the path-side were kneeling in a row some thirty women, with hands clasped in supplication of ourselves. Our first impression was that they were beggars, but it is doubtful if a beggar could exist in these deserted mountains and desolate vales. These women were, besides, comfortably dressed, though rather in the costume of the Tai (Shan) race beyond Têng-yueh than *à la Chinoise*. Their greeting—"A respectful welcome, great Sirs"—was no more than the usual formula. On inquiry it turned out that they were begging to be protected from the approach of beggary, and not to be relieved from its actuality. They were the women-folk of well-to-do Mohammedans slain during the outbreak, or missing; they still retained the ancient title-deeds of their lands and houses, but had been deprived of civil rights. Mistaking us for Mohammedans—a very frequent error—and hearing that we were officials on an important mission, they awaited our arrival to implore, in their ignorance, an intercession which, coming from us, would certainly have injured their cause.

Indications are not wanting to show that Mohammedan influence is far from extinct in Yünnan. These women are furnished with money by their refugee relations, who keep up communication with them from regions inaccessible to the authorities. At any moment imperial tyranny and fatuity may provoke an outbreak, and with so many wrongs to revenge and rights to recover, it may be imagined if the late masters of the country are likely to seize the occasion.

Ch'ü-tung is remarkable in our memory for four points: for its cleanly appearance; for its battered condition, three-parts of the place being covered by the ruins of substantial buildings; for the great number of small birds which frequent it; and for the capture, at which we were present, of a large snake in the very centre of the little town. It proved to be a jungle cobra 8 feet 1 inch in length.

On the morrow the inevitable climb awaited us. A winding track leads through a wooded glen to the foot of a steep ridge, which we only surmounted to find a most forbidding range still barring our advance.

Descending to T'ieh-ch'ang (62½ miles), which means "ironworks," but contains neither works nor iron, being nothing but a squalid gathering of half-a-dozen huts,

we found ourselves near the centre of a cultivated hollow; the stream which drains it seems to flow inexplicably into a bay of hills, without any exit—another enigma to be solved by the traveller of the future.*

Hsiao-hua-ch'iao (63¾ miles) ("little flower bridge") is not much more flourishing, but Hua-ch'iao, a mile further on, is a village of some pretension and preservation, a short distance up the slope. From about this point a continuous steep ascent winds among rocks and knolls through thick woods and thicker jungle, which obstruct the view in such a manner as to render bearings and distances problematical. Sixty-three minutes' severe labour, not including stoppages, brought us to T'ien-ching-p'u (66¾ miles), which is little more than a wayside hostel. We saw here for the first time some women of the race or races called indifferently by the Chinese "Ichia," "Mantzu," "Miao-tzu," or "Yeh-jen." The first term is perhaps less contemptuous than the rest; but they all mean, more or less, "savage," or "barbarian." Except in the case of the Kutung men, we never found the Chinese, official or otherwise, distinguish the different designations in the slightest degree, although there are obvious differences of language, dress, and manners. This was the more disappointing, as we were ourselves sometimes included in this indiscriminating category.

These women were dressed in ordinary blue cotton cloth, but were tricked out with a good deal of bead-work, especially about their head-gear. We had little time to improve their acquaintance, and as they could not understand us, nor we them, our conversation flagged. Though inclined to dumpiness, and of a brick-red complexion, their appearance was pleasing, nor were they by any means obtrusively shy.

While scrambling up the steep beyond this I overtook a caravan conducted by a few Kutung men. The first I passed was a youngster some seventeen years of age, handsomely dressed in a close-fitting woollen costume, and wearing a fine pair of sapphire earrings. My curiosity (not cupidity, as my companions, who were on ahead at the time, subsequently insinuated) induced me to ask him to allow me to examine them, and as it appears that he did not understand Chinese, I held out a hand with a gesture to the same effect. His only reply was to spring back and draw a long dagger from his belt. Not caring to risk my invaluable existence, nor feeling anxious to imperil his, I thought the best thing was to sit quietly down and make a polite gesture for an examination of his dagger. This policy seemed to puzzle him, and his excitement was already subsiding when five or six of our following, who all carried arms, came up and surrounded him. "Shall we incision make? shall we imbrue?" seemed the question of the moment; but on being told to sit down they at once obeyed, sitting round him where they had stood in a ring. This was too ludicrous a situation for the Chinese, who burst out laughing; but the young gallant, in a very dignified manner, stepped out of the circle and stalked away with his bare blade. His manner was not in the least like that of a savage, and though his action was hasty, I am not prepared to call it altogether unjustifiable.

Shortly afterwards, as I was endeavouring to find out from our Chinese what country these people inhabit, another of them suddenly issued from the jungle where he seemed to have been sleeping; but for some unexplained reason he had stripped himself stark naked, and was so evidently anxious to go back for his clothes that it would have been cruel to detain him. On continuing the route we passed a third

* On referring to the route chart it seems probable that the stream in question finds exit through a gap which was not visible from the road, and is the same brook that runs through Ch'ü-tung. We failed, however, to detect any appearance of such a break from Hua-di'iao, or a little before it, where we rested for some minutes.

who, though doubtless anxious to converse, turned out to be dumb. He seemed to be a servant of the others.

After tiffin, which welcome event took place at Yung-kuo-ssu (67¼ miles), a hamlet consisting of two huts, while we were attempting to enjoy a pipe of the mundungus, which in these regions passes for tobacco, the whole caravan came up. We sent to ask the chief conductor to visit our shanty; he accepted *sans gêne*, and after a mutual drinking of healths, in which process he exhibited a certain alacrity, we inquired the whereabouts of his country. With the little Chinese he spoke we only understood that his native place was somewhere north of Tali-fu. He was very well behaved, and by no means a bore, very much less so than the Chinese, who seldom perceive when the time has come to terminate a visit.

The breech-loading and extracting apparatus of a Snider rifle inspired him with so lively an interest, that in return for our allowing him, to the imminent danger of the public, to discharge ten rounds of ball-cartridge in various directions, mostly vertical, he insisted upon fetching his own matchlock, and exhibiting his and its powers of shooting. He returned with a fine old crusted weapon of the Chinese order, provided with a forked rest, and selected a white stone about seven inches in diameter, which he placed at a distance of 30 yards.

Lying down on his stomach and adjusting his rest, he took a prolonged aim and then pulled the match, previously lighted, slowly and carefully down upon the touch-hole. Nothing of importance resulting, he pricked up the powder and recommenced; still nothing worthy of note ensued, but not at all disconcerted, he rose with the remark that his gun had not gone off, that the match was probably damp, and he would fetch another. Thus reinforced, he contrived to hit the stone, and we warmly congratulated him on the achievement. His matchlock was furnished with a ring sight near the lock, but had no fore sight. The bullets were cylindrical.

As we were now on the best of terms, I inquired why his young compatriot had drawn upon me. He explained, much to the delight of my companions, that he was anxious about his earrings; but he was kind enough to exonerate me from any propensity to brigandage, and subsequently rebuked the young fellow roundly. The latter was told to hand me his dagger for inspection, which he did with a good grace, but I remarked that with pardonable circumspection he had divested himself of his earrings.

In the afternoon we descended to the valley of Sha-yang, a stony, half-cultivated hollow a mile and a half broad, and stretching, as far as we could judge, about four miles to the south-east. That it cannot extend far is shown by its stream running north-west, in contradiction to the general conditions of this water system. The stream must enter the Mekong, and from the direction of the mountains we feel safe in assuring our successors that by following its course for a few miles they will discover gorges and defiles of unusual abruptness.

We had undergone a hard day's work, and took advantage of our arrival at a spacious temple to rest for a day. Ten miles per diem may seem a small matter to the British tourist, but if he will make the experiment of emptying the contents of his dust-bin down his backstairs, turning on all the water-cocks, and sprinkling a cartload of bricks over the whole, he may, by marching up and down until he has completed 10 miles, arrive at an approximate conception of a day's journey in Western Yünnan.

Our coolies were delighted with the prospect of a day's repose, and so seemed the willing mules and ponies—"the hollow pampered jades of Asia, that cannot travel thirty miles a day." Our jades were more hollow than pampered. They were generally left to find their provender on the hill-side. The ponies are wonderful animals, absurdly small, but of surprising pluck and pertinacity.

The temple is situated on a hill-slope above the village of Sha-yang. It will form very agreeable head-quarters for travellers who intend to examine this section of the Mekong Valley, but it will be advisable for them to occupy the hall in which the idols are installed in preference to the lodging rooms. These are low and thinly roofed, and one of our party who slept in them suffered from a severe access of fever. The terrace of the temple is shaded by fine trees, and on the hills at the back, hog, deer, and partridges may be found without too much exertion. Our sportsmen found it best to mount a commanding point and shoot down. In the event of the larder failing, those who consider doves worth eating will make a plentiful bag.

Sha-yang, or Sha-mu-ho, a little below our temple, is a village of some importance. A fair was being held there, to which our Kutung friends had brought a stock of peddling. We tried in vain to induce them to part with their swords and daggers, some of which were handsomely ornamented with silver.

Although now less than three miles distant from the Mekong, we could form no idea of its course; the abrupt wall of hills facing us seemed the introduction to another mountain journey of 10 or 12 miles; but on the 24th, after passing through Sha-yang and Yung-fêng-chuang (74 miles), the latter a small but well-to-do village, a steep climb of twenty-five minutes suddenly brought us on to a ridge almost vertically above that famous river. A series of short and dangerous zigzags leads down to a bold suspension bridge of 60 yards span, striding the river at its issue from the darkest of gorges. The perpendicular walls are not 100 yards apart; from our confined position we did not venture to estimate their height. The heath-clad domes which surmount them towered far above us while we were still on the ridge. A narrow road which crowns the right bank leads invitingly into the gulf, but we were compelled to turn reluctantly away.

The Mekong is 60 yards broad at this point, but it widens below to about 80. The reach seen by us is a smooth, steady stream, without rapids, the current scarcely more than 2½ miles, and probably, though this is a mere estimate, affording 10 feet of water. We could only see about four miles down the stream; at that distance it disappeared from view between precipitous barren walls; the whole reach was, in fact, nothing but a floor of the gorge. On the left bank the mountains rose immediately from the margin of the water, but on the right there was an occasional shingle bed. The 'Yünnan Topography,' a Chinese work published under the Ming dynasty, remarks, "The Lan-tsang river (Mekong) 80 *li* north of Yung-ch'ang at the base of the Lo-min Mountains, is 90 yards in breadth; its depth has not been ascertained. Flowing by Yung-lung and Shun-ning, it passes through Ch'e-li, and enters the Southern Ocean."

The height of the Mekong above the sea-level is about 4700 feet. We make no doubt that it is at this point capable of boat navigation, but there is no trade, nor any town to trade to. At the time of our visit it was swollen by rains; and it is noteworthy that the Salwen and Shweli, which we afterwards crossed, were not in the least discoloured, although the rains had by that time fairly begun. We saw no boats on the river, nor, indeed, anywhere after leaving the lake of Tali-fu. There seems to be no trade from north to south; we passed very few paths running in that direction, certainly nothing worth the name of road. This fine stream, instead of affording an easy highway for traffic, forms an obstacle to communication. "Lan-tsang-chiang" is the received native name of the Mekong, but it is generally abbreviated into "Lan-chiang."

The three main streams of Western Yünnan are locally known by the convenient terms Lan, Lu, and Lung.

The suspension bridges, which are the pride of Yünnan, are all constructed on the same system; five or more chains formed of oval links about six inches in the long

diameter, and ¾-inch thickness, are strained very tightly across, the ends being embedded in rock or masonry, but how secured did not appear. The way consists of planks laid on these, not suspended from them, and two other chains hung from massive gatehouses at both ends form a protection and assistance to the passenger. In some cases the road chains are tied with bars. The bridges vibrate considerably, but the curve is not very great. It would be interesting to ascertain how, with their miserable appliances, the Chinese contrive to stretch the chain so tightly, decreasing the strength of the bridge while rendering it easier to cross. We saw no instance of the roadway being suspended from the chains.

We were now on the border-line between Carajan and Zardandan: "when you have travelled five days you find a province called Zardandan," says Messer Marco, precisely the actual number of stages from Tali-fu to the present boundary of Yung-ch'ang. That this river must have been the demarcation between the two provinces is obvious; one glance into that deep rift, the only exit from which is by painful worked artificial zigzags which, under the most favourable conditions, cannot be called safe, will satisfy the most sceptical geographer. The exact statement of distance is a proof that Marco entered the territory of Yung-ch'ang.

P'ing-p'o (76 miles), a hamlet about a mile beyond the bridge, is also called Lan-tsang P'ing-p'o ("Mekong terrace"). The bluffs above it seemed utterly inaccessible; but a rough and slippery way, in many places cut in the rock, climbs the almost vertical cliff, and after a parting gaze at the great river we threaded a narrow valley between low heights and reached Shui-chai (77¾ miles), our resting-place for the night, a well-built and populous village, perched in a small amphitheatre amid grassy hills. There is a good deal of cultivation, chiefly rice and poppy, in the neighbourhood.

Next day, April 25th, the first of the spring rains came upon us. We followed a very devious path, above a small cultivated valley, and not long after starting, espied in a south-east direction, two stupendous crags of bare rock. Unfortunately they were soon hidden from our view by rain clouds and intervening hills, and I had no opportunity of fixing their position. They seemed less than four miles distant, and probably overhang the Mekong. Black, jagged, and utterly bare, they are in strange contrast with the rounded and verdant summits which they dominate. All the faces visible to us were precipices, apparently 1000 feet sheer, but we could not see their bases. If they overhang the river, the view from its gorge must be of unusual sublimity.

A dense rain-cloud suddenly burst over us, and in a very few moments our whole party—some twenty-five in number, not including escorts and muleteers, who had not yet come up—were as thoroughly wet through as if they had just swum the Mekong. The hamlet of Tali-shao (80¾ miles) afforded us temporary shelter, but after quitting it, which we did rather prematurely, we had to encounter the full force of the deluge for forty-two minutes.

One of us, profiting by his experience of rain storms in Formosa, took off all his upper garments, rolled them up as tightly as possible, and, pressing them under his arm, made all haste onwards.

The narrow and confined track soon became a running stream nearly a foot deep, and boots and socks had to be dispensed with. One of our party, with that readiness of resource so characteristic of distinguished travellers, effected a rush up a slope of red clay, with a view to outflank the torrent; but after a successful ascent of 40 yards, he found it impossible to proceed or return, or even to retain a standing position. The sudden *glissade* which he was compelled to execute, plunging with great accuracy and splash into the deepest part of the flood, was inspected with minute curiosity by his companions.

A mile and a half of similar scrapes brought us to the village of T'ien-ching, which boasts half a hut and a floating population of three. The fragment of a hovel was little better than a lean-to, composed of two walls and a crazy reed roof. Our whole party huddled into it, and proceeded to wring out their clothes. Those who had taken the precaution of rolling them up found the inmost convolutions almost dry, but the rest had to endure chills and cramps for the space of a couple of hours. We had prudently carried with us a light iron stove, and were all rewarded by its usefulness in this washed-out hovel, where there was no fire-hole sufficient even for the simple requirements of a Chinese cook.

During the spring rains, which begin in May and fall more or less continuously for about two months, the traffic of Western Yünnan almost ceases. Even on the level road we had found progression barely possible; what it must be on the steep slopes and zigzags I would rather imagine than experience. The coolies tie iron "crampons" to their straw sandals, and we found the latter preferable in many cases to the heavy and slippery European boot.

The sun broke through again, and we strolled pleasantly down a dell by a rushing stream, past the two huts of Niu-chio-kuan (83 miles), to the village of Kuan-pó (84 miles), which overlooks the large valley of Yung ch'ang, "at the close of the eve, when the hamlet was still." We sauntered about the place to pick up scraps of information, and met two traders who had just returned from Manwyne, where they had been trading profitably with a venture of Yünnan opium. They considered the route which lay before us fairly easy as far as Manwyne, with the exception of the two days' journey beyond the Salwen; we should find this the most toilsome ascent of our whole journey. We must not fail, they said, to cross the Salwen and its valley before sunrise, or we should inevitably succumb to malarious fever.

The mountain road beyond the farther bank was difficult and wearisome in the extreme, and in addition to ordinary dangers from brigands, an attack was to be apprehended from a band headed by a certain Li-ch'ao, sometime a Mohammedan partisan, who had lately taken to the mountain and declared war to the knife against Imperial officialdom.

This person was seconded by a trusty ally, carrying on concerted operations farther west, in the shape of a priest endowed with miraculous powers to exterminate the unregenerate by spells and exorcisms. The Tai (Shan) people beyond T'êng-yueh were, they informed us, very genial and hospitable.

The Yung-ch'ang Plain, which we entered next day (April 26th), is the most extensive we had seen since leaving the capital. Here alone did we meet any signs of the great population which common report has attributed to Yünnan before the Mohammedan troubles.

A level plain, some six miles in breadth, stretched north and south for a distance of 20 or more miles, teeming with villages and seamed over most of its extent with the demarcations of rice-fields—a joyous prospect, at first sight, of prosperity and peace; but descending into its midst, we found its habitations generally a heap of crumbling and deserted ruins, and the fields for the most part a malarious morass. The village of Pan-ch'iao (88½ miles) had retained certain vestiges of population and trade, to be accounted for by its advantageous situation on the central stream, making the irrigation of its vicinity more convenient than elsewhere, and by the fact that the causeway which supports the high road passes through it. We traversed its one long street on a market morning; but with the exception of a few stalls of crockery, iron pans, hoes, and nails, little more was displayed for sale than the pigs and agricultural produce of the neighbourhood.

Its stream, crossed by a stone bridge, which gives it the name Pan-ch'iao (slab

bridge), is about 20 feet broad and of insignificant depth. On most maps a large lake is depicted south of this point. It may once have existed; the plain is very marshy, though the borders of former rice-fields can everywhere be distinguished, and is impassable except along the paved causeway leading to Yung-ch'ang, but there is at present no body of water which could even be mistaken for a lake.

Yung-ch'ang, the westernmost prefectural city (*Fu*) of China, is visible from a long distance, being partly built on a spur of the Western range. From the north-east this spur has the appearance of an artificial pyramid raised behind the city, an illusion which is heightened by a part of the wall running up from the angle. A cluster of temples and pagodas some little distance up the height give the place an imposing appearance; but more than half the space within the city walls consists of waste land, supporting a flourishing population of pheasants. The plain is about 1200 feet lower than that of Tali, being 5880 feet above the sea-level.

A word regarding the dialect of Yünnan. The farther we advanced towards the west, the purer we found the language. Any one who possesses a moderate knowledge of the so-called "Mandarin" colloquial will be charmed with his intelligibility in Yünnan. Yung-ch'ang is specially distinguished for the clearness of its pronunciation, approximating to the Peking dialect, but devoid of most of the vulgar and superfluous *r* final. Things have indeed changed since Marco's time, when the people "had a language of their own, which is passing hard to understand."

How comes it that the language of the remotest province of China is almost identical with that spoken at the capital, while in the intervening provinces so many uncouth and distorted jargons are encountered?

The patois of Ssŭ-ch'uan, at any rate in the mouths of its country folk, was more than half unintelligible to our northern followers. Hunan was, in addition, ridiculous; but in Western Yünnan we were accosted in a familiar and luminous speech, which made us feel as if we were nearing home. Philologers would fail to discover the reason, independently of history, but it is of infinite simplicity, The natives of Yünnan were forced to learn the language of the north on pain of death.

Wu San-kuei, the Chinese general who sided with the Tartars at the rise of the present dynasty, and subsequently reduced Yünnan, became its king, and imposed a despotic and grammatical rule upon his subjects. Selecting those of his veterans who spoke the purest Chinese, he set them to instruct the vanquished. Tradition does not state how many dunces were decapitated, but in any case his educational policy has produced admirable results. "At times kings are not more imperative than rhymes." But here was a king more imperative than a whole language.

Biot has it that Yung-ch'ang was first established by the Mings, long subsequent to the time of Marco's visit, but the name was well known much earlier. The mention by Marco of the Plain of Vochan (Unciam would be a perfect reading), as if it were a plain *par excellence*, is strikingly consistent with the position of the city on the verge of the largest plain west of Yünnan-fu. Hereabouts was fought the great battle between the "valiant soldier and excellent captain Nescradin," with his 12,000 well-mounted Tartars, against the King of Burmah and a large army, whose strength lay in 2000 elephants, on each of which was set a tower of timber full of well-armed fighting men.

There is no reason to suppose this "dire and parlous fight" to be mythical, apart from the consistency of annals adduced by Colonel Yule; the local details of the narrative, particularly the prominent importance of the wood as an element of the Tartar success, are convincing. It seems to have been the first occasion on which the Mongols engaged a large body of elephants, and this, no doubt, made the victory memorable.

Marco informs us that "from this time forth the Great Khan began to keep

numbers of elephants." It is obvious that cavalry could not manœuvre in a morass such as fronts the city. Let us refer to the account of the battle.

"The Great Khan's host was at Yung-ch'ang, from which they advanced into the plain, and there waited to give battle. This they did through the good judgment of the captain, for hard by that plain was a great wood thick with trees." The general's purpose was more probably to occupy the dry undulating slopes near the south end of the valley. An advance of about five miles would have brought him to that position. The statement that "the King's army arrived in the plain, and was within a mile of the enemy," would then accord perfectly with the conditions of the ground. The Burmese would have found themselves at about that distance from their foes as soon as they were fairly in the plain.

The trees "hard by the plain," to which the Tartars tied their horses, and in which the elephants were entangled, were in all probability in the corner below the "rolling hills" marked in the chart. Very few trees remain, but in any case the grove would long ago have been cut down by the Chinese, as everywhere on inhabited plains. A short distance up the hill, however, groves of exceptionally fine trees are passed. The army, as it seems to us, must have entered the plain from its southernmost point. The route by which we departed on our way to Burmah would be very embarrassing, though perhaps not utterly impossible, for so great a number of elephants.

Leaving Yung-ch'ang—in which city, by the way, we were not impressed by the truth of Colonel Yule's encomium on "the remarkable beauty and fairness of the women"—we started down the plain in full view of the great battle-ground, through fields purple and white with the curse of China, over a bridge which spans a dry watercourse, past a large reservoir for irrigation, and then rested at Wo-shih-wo, the "Den of the Sleeping Lion" (96½ miles), a poor hamlet. From this we immediately entered the hills, and a short ascent brought us to the mouth of a cave from which the hamlet derives its name. This cave possesses great local celebrity as a curiosity. The peculiar name does not appear to be connected with any tradition. According to the topographical work quoted above, "the cave is situated at the foot of Sleeping Lion Hill, and is called Banana Cave; it is two fathoms broad, the same in height, and penetrates the mountain a distance of 150 paces. The glittering stalactites within resemble lilies, bells, and umbrellas."

A further ascent brought us to Kao-tzu-p'u (98½ miles), and in the afternoon we loitered through a pleasant upland, thick with fine trees and shrubberies, until, after extricating ourselves from the dark and forest-hidden dell of Lêng-shui-ching, we issued on to the usual barren western slope, and descended by a very winding path to P'u-p'iao (106½ miles), situated in a small circular valley amid fields of rice and poppy. Good lodging can be obtained in a temple a quarter of a mile beyond the village.

General Thunder came in the evening with an anxious countenance to inform us that the rebel Li-ch'ao was encamped on the hill-side a few miles beyond. Li-ch'ao had played a conspicuous part in the Mohammedan rebellion, but, on its suppression, had tendered his submission. While living quietly on his farm he had been sued for a debt equivalent to about 65*l.*; this he paid, but shortly afterwards was again sued for the same debt, the authorities affirming that he had not paid it. When he protested against this extortionate tyranny, he was refused a hearing as being a notorious rebel. He once more paid the money, but when an attempt was made to obtain a third exaction by the same tactics, he was driven to a fit of desperation, such as not seldom seize the Chinese. He proceeded to murder his mother, wife, and children, burned his house, then took to the hills with a band of followers, many of whom, like himself, had been persecuted to desperation, and swore death to all officials on whom he could lay hands.

We had personally, in all probability, no cause to apprehend the animosity of this desperado; moreover, there is reason to think that the authorities contrived to make some arrangement with him, or with his followers, not to molest us. Our *impedimenta*, too, reduced by this time to a few cans of tinned soups, garrisoned as they were by a still plentiful supply of ball and shot-cartridge, would scarcely have tempted the most rapacious freebooter. So we comforted Thunder by assuring him that not having the honour to be Chinese officials, we felt perfectly secure; at the same time we earnestly pressed him to take the greatest care of his own safety.

The little valley in which P'u-p'iao is ensconced bears every trace of having at an earlier period formed the bed of a lake. It was, doubtless, ultimately drained by the action of its small stream cutting deeper and deeper into the natural bound, at one time a bar, which bounds it on the north-west.

The next day, April 29, we did not get under way until the afternoon. We were beginning to feel affected by a certain weakness, lassitude, or laziness—I know not which to call it—(feverishness, would, I think, be the aptest term), brought on possibly by the extreme dryness of the air. Here, as during the whole journey, the Chinese suffered much more than ourselves. This exceeding dryness was proved, in the absence of instruments, by the rapidity with which our water-bottles—ordinary claret bottles, wrapped in wetted flannel—were cooled by evaporation. On the whole land-route from the Yang-tze to the Shweli, we easily obtained deliciously cool water by this means; but after descending into the sweltering valleys beyond T'êng-yueh, we were much surprised and inconvenienced by the invariable failure of the process.

In this condition our plentiful supply of quinine was an invaluable boon; our whole medical practice was, indeed, very successful, except in the case of our poor native writer, who died very suddenly soon after leaving the Yang-tze. I have my own suspicion of the causes of his death, but it would be out of place to relate them here. If we ever erred, which we do not admit, in the matter of prescriptions, it was on the side of excess; but the fine air, and the high spirits of the whole party, by no means excepting our Chinese, contributed no doubt to nullify the inconvenience of ears buzzing with quinine, sore eyes obscured with acid lotions, and skins scarified with undiluted disinfectant fluids.

On one occasion we found that a large bottle of carbolic acid had been broken inside its wooden case. We exhausted our ingenuity in hopeless efforts to unscrew the cover. We feared to carry it farther, as the burning tears distilled by it destroyed everything they touched. We dared not throw it aside, lest the unsophisticated heathen should drink it as a cheering or medicinal beverage. We had no time to wait and empty it, as the fatal fluid would only trickle drop by drop through a chink which had been cautiously and laboriously excavated with a blunt hunting-knife.

What were we to do? Degrading as the confession must appear, we had to deposit the torpedo in the middle of the yard, and throw bricks until it was smashed.

From P'u-p'iao the road turns the hills by deviating to the north-west, following the direction of the stream.

We lost sight of this in a deep nullah, and, after travelling three and a half miles, we sat down on the terrace of a ruined temple, overlooking a small but populous and thickly-cultivated amphitheatre, through which the stream meanders, and at last disappears to the north among low hills. We were told that it shortly afterwards enters a lake about 10 miles in circumference. There was certainly an appearance of a depression in that direction, and a lake is indicated on some maps with the name Chien-Hai-tzu.

While we were reposing at the temple, Thunder came up, and pointing to the opposite mountain-side, informed us that we could now see the rebel band with our own eyes. We certainly made out a small dark mass high up the barren slope, but, for all we could discern, it might as well have been a flock of goats. The smoke which issued from its midst, however, corroborated the general testimony, and somewhat blunted our scepticism. We were never gratified with a sight, however distant, of the wizard priest; but, as will be seen in the sequel, he has contrived to make his mark in the annals of Yünnan.

Our party consisted of no small number. The escort provided by the Governor of the province was nominally sixty all told, but it dwindled occasionally to twenty, or less. At this point it was doubled.

We had ourselves recruited a few Ssŭ-ch'uan braves for our personal escort, and very faithful and attentive henchmen they proved themselves. Our cook was generally despatched at dawn with careful instructions, designating the exact locality for tiffin. Then would follow the coolies and mules with our cumbrous *impedimenta* galling their reluctant backs. About seven o'clock our vanguard would set out, consisting of some ten tall fellows waving immense spear-topped banners, followed by as many malignant and turbaned braves armed to the teeth, with opium-pipes and umbrellas. Then came ourselves, brandishing mysterious weapons known to the barbarian as prismatic compass and field-glass, and attended close at heel by followers bearing the fallible rifle and the devious shot-gun. Our servants, mounted on destriers, 10 hands high, brought up the rear, in company with sedan chairs, water-bottles, medicine-chest, more escort, and the less efficient coolies, among whom we occasionally discovered a literary student, who took unnecessary pains to assure us that his studies had prejudiced his muscularity. In this rough country the sedan-bearers are assisted by traces made fast to the two poles; a dozen trackers haul upon these, leaving to the bearers little more than the task of supporting the chair.

A kind of *corvée* is in force, by which the villagers are bound to provide trackers for official travellers; the consequence is that young children, naked little rascals, sometimes not more than eight or ten years of age, generally present themselves, willing, and even anxious, to strain at the traces over 15 miles of rock and mire, and the moment they have reached the end of the stages and unharnessed themselves, to hasten back again, by night, through the dark forest, to their mothers with a day's pay of about three farthings.

The little wretches carry their own provisions in the shape of a scanty bag of boiled rice. We never used our chairs except when required to do so by etiquette, as on entering the gate of a town; but it was useless to protest that we had no need to be supplied every morning with a large family of small children; they invariably appeared soon after dawn, but after travelling a mile or two, we used to send the very young ones back with a few extra cash and a recommendation to go to school. It was piteous to see the astonishment with which they commonly regarded this outrageous irregularity.

Resuming our route, we rounded the end of the small western range, and turning south down a tranquil avenue of grassy hills abounding with francolin, soon arrived at the four hovels which shelter the inhabitants of Ta-pan-Ching (113½ miles). Fortunately for our numerous cavalcade, the house accommodation was reinforced by the erection of a few mat-sheds.

The morrow's journey would lead us across the Salwen—a river, to the native mind, teeming with portent and mystery. In Western Yünnan this river is always spoken of with a certain awe. Governor T'sen himself had warned us to cross its valley with all haste. Often had we been told of the many varieties of malarious

exhalations which shroud the hollow after sunrise: fogs, red, yellow, and blue, of which the red is the most deadly, and the blue next in the scale of mortality.

General Thunder, who had never previously crossed, came to notify to us that he had determined to start before daylight, so as to get well beyond the river before the sun was up. Luckily for us, he said, the deadly flood was now spanned by a suspension bridge, but before its construction travellers had to pass in boats. In those days a gruesome monster, resembling in shape a huge blanket, would issue from the depths, and wrapping passengers and boat in his fœtid folds, would sink back into his native abyss.

These dreadful stories, which I tell as they were told to us, so excited our curiosity, that we resolved to cross the valley of death at mid-day, and tiffin on the very verge of Styx.

On the next day, April 29, Thunder was up and away long before daylight. We started about seven o'clock down a steep gorge through dense woods, and soon discovered the valley of the Salwen far below us. Seven miles of continuous descent, alongside a stream which in some places selected the road as its bed, brought us to the mysterious river (121 miles), crossed by a chain-bridge 140 yards long and of two spans. One span of 80 yards clears the water, and the other bridges a shingle-bed, which is covered in the summer months. A massive rock-based pier on the edge of the bed supports the chains, but, curiously enough, the chains of one span are not continuous with those of the other; the ends of one set terminate in the pier, and the other set takes a fresh departure several feet to one side; so that on arriving at the pier the passenger has to turn at right angles to his course to attain the second span. The structure is, in fact, two suspension bridges. It is in a very dangerous state of dilapidation, and we hurried over it, not unmindful of the blanket-fiend lurking below.

The floor of this valley lies at the surprisingly low level of 2670 feet above the sea. The river is some 240 feet lower, running between steep banks of a regular slope, much resembling a huge railway cutting. It sweeps down a short rapid under the bridge; but farther down it was evidently of considerable depth, by no means swift, with a breadth of 90 yards or more, and invitingly navigable for boats of a large size—say, the boats of the Upper Yang-tze, but not a shallop or punt was to be seen.

The shingle-bed under the bridge was strewn with granite boulders glittering with unusually brilliant mica-flakes.

Just beyond the bridge was a small village, created no doubt by the slender traffic, where under a magnificent banyan we spread our frugal table. But even before leaving the bridge we met evidence of the plague which desolates this valley; for, sitting in the gateway was a young man whose corpse-like aspect at once drew our attention; his face was a greyish-black, and what should have been the whites of his eyes were literally and actually green. As we approached he slowly turned those horrible orbs upon us, with a dazed and other-world motion that was most ghastly. He was evidently in a severe stage of some form of fever. We administered a dose of quinine, which he swallowed without hesitation, and without interest. There were six other cases of the same sort in the village.

Many of the houses were merely skeletons of pole-work, of course unoccupied. We were told that in a few days the whole village would be dismantled, and the people would withdraw to the mountains.

We then discovered the strange fact that this valley is uninhabitable during the summer months on account of the malaria, the natives retiring as soon as the fields are planted, and returning to reap them in the autumn. "But what becomes of travellers?"—"Very few pass in the hot season, and those hurry through before

sunrise." There may be some exaggeration in this, but the main fact is unquestionable.

The air of the place was curiously hot; the thermometer, well shaded, stood at 96°, but irregular blasts were wafted from the south-east, which scorched like the breath of a furnace.

Walled in by precipitous mountains, and wooded with clumps of exceptionally fine trees, the unhappy valley is picturesque in the highest degree. Small rounded hills are dotted about its floor; the rice-fields cover a great space, but very few, probably not a tenth part, are now under cultivation. It is by far the lowest depression in Western Yünnan, and runs nearly due north and south as far as the eye can reach, with an average breadth of about two miles. Looking up that lone avenue of precipices, between which the deserted river threads its silent way, one cannot suppress a certain sentiment of solemnity.

A short distance below the bridge lies a considerable walled village, bearing the curious name, Old City of Tu-shu (Tu-shu las Ch'êng), inhabited by a people not Chinese, and governed, subject to Chinese supervision, by an official of their own race, as among the Tai tribes.

Although we had no opportunity of establishing the point, there is little doubt that these people are Tais, the same that are called "Shan" by the Burmese, and "Po-yi" (white barbarians) by the Chinese. Why not allow them to retain their own national designation of "Tai"? They preserve their own manners, costume, language, and alphabetic writing: let them keep their own name.

One would not have expected to find these interesting people so far east of T'êng-yueh. They also desert the valley in summer.

Of the three rivers, Mekong, Shweli, and Salwen, the Salwen is, in the parallel at which we crossed, beyond question the largest. The 'Topography of Yünnan' does not give its breadth, but draws special attention to its evil reputation for malaria: "The Lu river, anciently called the Nu, is met with 20 miles south of Yung-ch'ang. The mountains on both banks are exceedingly steep, and its exhalations are so poisonous that it is impassable during summer and autumn."

Another strange disease which haunts this and some other of the valleys of Yünnan bears, in some respects, a resemblance to the plague of London described by Defoe.

Its approach is indicated by the eruption of one or more minute red pustules, generally in the arm-pits, but occasionally in other glandular region. If several pustules appear, the disease is not considered so hopeless as when there are few. The sufferer is soon seized with extreme weakness, followed in a few hours by agonising aches in every part of the body; delirium shortly ensues, and in nine cases out of ten the result is fatal.

It often happens that the patient suddenly, to all appearance, recovers, leaves his bed, and affirms that, beyond a slight sensation of weakness, he feels thoroughly convalescent. This is invariably a fatal sign; in about two hours the aches return, and the sufferer dies.

True recovery is always very gradual. This is the account given us by a French missionary, who has spent half a lifetime in Yünnan. The native version includes all the above facts, but involves them in a cloud of superstitious accessories; for instance, all parts of the sick-room are occupied by devils; even the tables and mattresses writhe about and utter voices, and offer intelligible replies to any one who questions them.

Few, however, venture into the chamber. The missionary assured me that the patient is, in most cases, deserted like a leper, for fear of contagion. If an elder member of the family is attacked, the best attention he receives is to be placed in a

solitary room, with a vessel of water by his side. The door is secured, and a pole laid near it, with which twice a day the anxious relatives, cautiously peering in, poke and prod the sick person, to discover if he retains any symptoms of life.

Père Fenouil (there is no objection to his name being mentioned) had himself witnessed many cases of the disease, and lived in infected towns. He attributes his own safety to the precautions he took of fumigating his premises, and keeping charcoal braziers constantly burning, to such an extent, indeed, that his house on one occasion actually took fire. He states that not only human beings, but domestic animals, and even rats, are attacked by the pestilence.

Its approach may often be known from the extraordinary movements of the rats, who leave their holes and crevices, and issue on to the floors without a trace of their accustomed timidity, springing continually upwards from their hind legs as if they were trying to jump out of something. The rats fall dead, and then comes the turn of the poultry; after the poultry have succumbed, pigs, goats, ponies, and oxen successively die off.

The good father has a theory of his own that the plague is really a pestilential emanation slowly rising in an equable stratum from the ground, and as it increases in depth, all animals are, as it were, drowned in its poisonous flood—the smaller creatures being first engulfed, and man, the tallest of Yünnan animals, suffering last.

The Christian converts suffer less than their pagan countrymen, from the superior cleanliness which, as we were informed, their faith inculcates.

We ourselves never saw any cases of the plague; but we met one native of South-Western China, no less a personage than the Governor of the Yünnan province, T'sên, a quiet, sober-spoken veteran of a hundred battles, deeply marked between the eyes with a scar inflicted by a rebel bullet. He had undergone two attacks; the second was less violent than the first. He remembered nothing of the acute period of the illness, but in both cases his recovery was gradual and protracted.

He attributed it to the influence of demons; and we afterwards heard a characteristic instance of his faith in his own diagnosis. The headquarters of his division during the Mohammedan rebellion were situated in a plague-stricken town, and when the infection began to attack his troops, T'sên had all the gates closed except that in the southern wall, and then sent in his soldiers with orders to slash and pierce the air in every corner that could possibly harbour a demon. After this preliminary slaughter, the men were formed in line against the inside of the north wall, and gradually advanced upon the south gate, hemming in the invisible fiends, and ultimately driving them with a final rush through the gate, which was immediately closed, and a strong guard placed outside. But somehow or other the goblins contrived to regain the interior of the city; by what means has not been ascertained, but it is surmised that they climbed over the wall.

We have now some explanation of the evil repute borne by this valley; it is certainly pestilential. The river was, until a late period, the boundary of China, as is indicated by the existence of the "old city" on its opposite bank. Border regions, "debatable grounds," are notoriously the birthplaces of myths and marvels. We relegate these lone recesses to the future explorer.

On a post in the village were nailed the ears of a thief. Those dead ears seemed a fit symbol of the deathly silence which reigns over the plague-stricken hollow.

With a sense of relief we began to climb the Kao-li-kung range by an interminable series of steep but well-paved zigzags, which brought us, weary and feverish, to the hamlet of Ho-mu-shu (120 miles), 3000 feet above the valley. Near this we found repose in a tumble-down temple.

May 1st.—Up through thick forest we continued the ascent, the brave baggage-

mules struggling and staggering along with ill-rewarded pluck. We emerged on to a short ridge appropriately named "Elephant's Neck," Hsiang-po (127½ miles), on which were perched a few mat-sheds newly transported from below. On our left, looking towards the river, a deep and pathless gully, dark with pine and undergrowth, shot down to the plain, and all around nothing arrested the eye but a stray crag towering above the forest. Under a bush close to the hamlet lay the corpse of a murdered woman—murdered by a robber for the sake of a parcel which the victim was attempting to conceal in her bosom, and which turned out to contain nothing more valuable than a common opium pipe purchased by the poor creature for her son.

Still up through the forest we mounted, until, at an elevation of 8730 feet, we paused to admire the paradise of dense greenery which undulated below our feet. This was the highest pass we encountered in Western Yünnan. Poor Margary writes favourably of this region as compared with the "horrid passes" between Yünnan-fu and Tali; but in the matter of gradients and difficulties of route there is really little to choose between the two sections.

We feel at liberty to say that if British trade ever adopts this track, we shall be delighted and astounded in about equal proportions.

By a circuitous path more and more thickly overshadowed as we descended, Tai-p'ing-pu (131½ miles) was reached, a mere cluster of shanties surrounded by an impenetrable forest. I write "impenetrable" with complete confidence, as General Thunder had specially requested the Nimrod of our party to take him out for an evening's shooting at this point. Thunder was held fast by his petticoats in a thorn-bush within 30 yards of the road, and did not attempt further exploration. "Dinah," our unfaithful retriever, sat down in a comfortable spot, and declined to interest herself in the operations; and Nimrod himself, after worming his way like the veriest Mohican a few yards farther, just managed to obtain a snap shot at the hind-quarters of a small deer, which did not remain long enough to allow its injuries to be substantiated.

To return to Marco Polo. The generally received theory that "the great descent which leads towards the Kingdom of Mien," on which "you ride for two days and a half continually downhill," was the route from Yung-ch'ang to T'êng-yueh, must be at once abandoned. Marco was no doubt speaking from hearsay, or rather, from a recollection of hearsay, as it does not appear that he possessed any notes; but there is good reason for supposing that he had personally visited Yung-ch'ang. Weary of the interminable mountain-paths, and encumbered with much baggage—for a magnate of Marco's court influence could never, in the East, have travelled without a considerable state—impeded, in addition, by a certain quantity of merchandise, for he was "discreet and prudent in every way," he would have listened longingly to the report of an easy ride of two and a half days downhill, and would never have forgotten it. That such a route exists I am well satisfied. Where is it? The stream which drains the Yung-ch'ang plain communicates with the Salwen by a river called the "Nan-tien," not to be confounded with the "Nan-ting," about 45 miles south of that city, a fair journey of two and a half days. Knowing, as we now do, that it must descend some 3500 feet in that distance, does it not seem reasonable to suppose that the valley of this rivulet is the route alluded to? The great battle on the Yung-ch'ang plain, moreover, was fought only a few years before Marco's visit, and seeing that the king and his host of elephants in all probability entered the valley from the south, travellers to Burma would naturally have quitted it by the same route.

But again, our mediæval Herodotus reports that "the country is wild and hard of access, full of great woods and mountains which 'tis impossible to pass, the

air is so impure and unwholesome; and any foreigners attempting it would die for certain."

This is exactly and literally the description given us of the district in which we crossed the Salwen.

To insist on the theory of the descent by this route is to make the traveller ride downhill, "over mountains it is impossible to pass."

The fifteen days' subsequent journey described by Marco need not present much difficulty. The distance from the junction of the Nan-tien with the Salwen to the capital of Burma (Pagan) would be something over 300 miles; fifteen days seems a fair estimate for the distance, seeing that a great part of the journey would doubtless be by boat.

But we must continue our route.

We passed the night at Tai-ping-pu in a hovel belonging to a Mohammedan family, who imagined us, as was often the case, to be co-religionists. Our host, for fear of heretic persecution, did not care to confess his faith, but the woman made very little scruple of speaking out. Our carriers and escort, having no shelter, managed to bivouac comfortably round huge fires of "good sappy bavins," furnished by the primeval forest which hemmed us in. As we descended on the 2nd May, the woods gradually thinned, and we very soon came in sight of the Shweli river, named "Lung-ch'uan," or more generally "Lung" by the Chinese.

It is a clear stream some 50 yards broad, running in a deep gully and much obstructed by rapids. The valley is not flat, as in the case of the Salwen, but easy slopes rise from both banks and exhibit a few patches of cultivation. A well-preserved chain-bridge 53 yards long spans the stream, the level of which we found to be 4300 feet above the sea, 200 feet lower than the Mekong.

The bridge is distant 136½ miles from Hsia-kuan; a mile and a half further brought us to the village of Kan-lan-chan, very poor, but showing indications of former prosperity. The high range we had been crossing on the two previous days is seen at great advantage from this point. To the north-east a jagged crag appears to attain a height of 13,000 or 14,000 feet; we saw no snow. The name Kan-lan-chan, in which Dr. Anderson tries to recognise a trace of Marco Polo's term Kara-zan (Carajan), is certainly curious and unlike Chinese designations in general. If a meaning must be extracted from the words, it would be "preserved olive stage," but it is exceedingly dangerous to rely upon the meaning of names as interpreted from the Chinese characters in which they are written.

In all probability the name was indigenous, and the Chinese conquerors have preserved some semblance of the original sound, while utterly perverting the meaning.

"Shan-shan-chan," the earliest name for the province of Yünnan, is probably another example of the process; reckless etymologists might be tempted to compare it with "Zar-dandan."

A heavy fall of rain set in at this place and continued for some ten hours. The aneroid needle fell from 25·37 at 9 P.M. on May 2nd, to 25·11 at 8 A.M. next morning.

One range alone now lay between us and T'êng-yueh. It turned out to be an elevated plateau of downs rather than a range, and was ascended without difficulty. The single farm-house of Kan-lu-ssu (141½ miles) presides over a few fields, but beyond this there is little or no cultivation. The road sinks deep into the surface of the down, and winds about in such a manner that the traveller can neither see where he is going nor what he is passing; but after crossing a small affluent of the Taping, we mounted a grassy but treeless upland, and halted for purposes of tiffin at the hamlet of Chin-tsai-pu, composed of four huts (144 miles). Descending a gradual

slope for three miles' distance, we suddenly came into full view of the plain of T'êng-yueh, 1000 feet immediately below us.

This hollow, about four miles long by three broad, was populous and cultivated to an extent we had not witnessed since leaving the plain of Yünnan-fu. Three large villages and some half-dozen small ones emerge like islands from a sea of rice-fields, irrigated by a stream which appeared to us to be an affluent of the Taping.

This river (Taping) affords a very good instance of the confusion in which Chinese geographical names are often involved. Its correct name is "Ta-ying," but according to the 'Topography' it is sometimes called "Ta-ch'ê." At Kan-ngai (Menglo) it becomes the "An-lo." Dr. Anderson names it the "Ta-ping," but at T'êng-yueh finds it called "Ta-ho" and "Ta-lo." The native maps provide it with still another designation as the "Yun-lung." We have thus seven names appropriated by a single river scarcely 150 miles long.

It was surprising, after travelling so many days through a region little better than a wilderness, to find ourselves in this far country suddenly descending upon the paddy plains so familiar in Eastern China.

Turning a shoulder of this deep descent, we obtained a bird's-eye view of T'êng-yueh, or rather of its walls; for the houses being few and far between, the interior of the city did not appear at that distance different in character from the country around. All we could see was a huge diagram drawn on the face of the plain, and I remember thinking that if ever the proposal to communicate with the Lunarian philosophers by means of geometric figures laid out on the earth's surface is carried into effect, the natives of the moon will see something such as here met our view.

The city appeared to us a pronounced oblong in shape. This was probably the effect of perspective, as the plan given by Dr. Anderson makes it very nearly a square.

Descending by a somewhat dangerous slope, we threaded our way through the flooded rice-fields to the large walled village of Li-chia-pu (148½ miles), from which two miles more brought us to the south-west gate of the city. We lodged in the temple indicated on Dr. Anderson's plan between Government House and the north-west gate.

For a detailed description of the city and its neighbourhood, I refer the future explorer to Dr. Anderson's work. I venture to add one local curiosity mentioned in the 'Topography' which was not seen by the Doctor or ourselves—"a lofty spiral mountain, 10 miles north of the city, enclosing a circular area, is crowned with three peaks, on which snow continues to fall after winter." This would seem to refer to a crater of unusual extent, and as the district shows undoubted volcanic signs, there is every reason to expect that "Snowy Mountain," the local name, would be well worth a visit.

T'êng-yueh seemed to possess very little trade, and its few inhabitants lacked the busy manner of Chinese citizens. But the people of Yünnan are in general notorious for laziness; even in the large cities many of the shops do not open before noon.

The sleepy city was, however, shortly afterwards awakened somewhat rudely from its lethargy by the machinations of our friend the wizard. Ten days after our departure this worthy, as reported in the 'Peking Gazette,' conspired with the banditti or Chanta (Sanda) to get possession of T'êng-yueh. This he succeeded in accomplishing, and "forthwith fortified the place with a large number of redoubts outside the walls. This state of affairs encouraged other local outbreaks towards the end of June. In the Prefecture of Yung-ch'ang a local leader named Li-ch'ao,* who had only lately been reduced to submission, broke out again at the head of upwards

* The bandit mentioned above who was driven to the hills by official extortion.

of 1000 of his partisans, occupied various stations on the post-road, and designed to seize the suspension bridge over the Salwen.

"The local outbreaks were, however, successfully grappled with, and on the 21st July Brigadier Chiang* arrived at the head of his force before T'êng-yueh. The exterior defences having been taken, mines were run up to the walls, and the first explosion was made at daylight on the 3rd of August; but owing to the great thickness of the *terre pleine*, an entrance could not be effected. A second explosion towards midnight was more successful, and the troops secured a lodgment. Some severe fighting ensued, but in the end the troops were completely victorious. Several hundreds of the insurgents were slain, and great numbers perished by drowning in the ponds. Wang, the wizard, took to flight in despair, but was found by the pursuing force so severely wounded as to be unable to speak, and was at once beheaded.

"The original outbreak at T'êng-yueh was the work of only a few hundreds of the train-bands, under a certain Su, but the revolt was strengthened by the accession of about 1000 partisans recruited from Chanta and Nan-tien by Wang."

There can be no doubt whatever that Margary was murdered by the above-mentioned train-bands of T'êng-yueh. Whether their discontent was occasioned by the disgrace into which they fell on account of the ignominious repulse inflicted upon them by Colonel Browne, or was aroused by the alacrity with which the local authorities disavowed all participation in the murder and subsequent attack, and proceeded to levy exactions on them as the penalty of their discountenanced activity, and in view of the heavy indemnity which it was thought would be exacted, it is impossible to say. In any case, it is not without some feeling of pardonable satisfaction that one reads of the slaughter of these miscreants to the number of "some hundreds," besides those who "perished in the ponds."

If a Chinese of average intelligence and education be asked what he knows of Yünnan, he will reply that it is rich in gold, silver, white copper, and precious stones; that it is a long way off; that travelling is very difficult throughout the province, as shown by the proverb "Ch'ih Yünnan-k'u" (to eat the bitterness of Yünnan); that it is a very unhealthy country; that the inhabitants speak a very intelligible tongue; and that it is cool in summer.

It will be complained that our expedition has added little to this general information; but it should be remembered that the business which occupied our best attention was of a political nature, and that we had no time to deviate from our route, or even to pause for the purpose of examining points of interest.

The mineral wealth of the province is unquestioned, but the only proof that came under our notice was a scanty export of white copper and salt. It is well known, however, that during the Mohammedan rebellion the metal trade almost disappeared, and has not yet had time to revive.

Of the sole agricultural export, opium, we can speak with some certainty. We were astounded at the extent of the poppy cultivation both in Ssŭ-ch'uan and Yünnan. We first heard of it on the boundary line between Hu-pei and Ssŭ-ch'uan in a cottage which appears in an illustration given in the work of Captain Blakiston, the highest cottage on the right of the sketch. A few miles south of this spot the most valuable variety of native opium is produced.

In ascending the river, wherever cultivation existed we found numerous fields of poppy. Even the sandy banks were often planted with it down to the water's edge; but it was not until we began our land journey in Yünnan that we fairly realised the enormous extent of its production. With some fear of being discredited, but at

* Degraded a year previously as having been responsible for the safety of Margary.

the same time with a consciousness that I am under-estimating the proportion, I estimate that the poppy fields constitute a third of the whole cultivation of Yünnan.

We saw the gradual process of its growth, from the appearance of the young spikelets above ground in January or earlier to the full luxuriance of the red, white, and purple flowers which were already falling in May. In that month the farmers were trying the juice, but we did not see the harvest gathered. We walked some hundreds of miles through poppies; we breakfasted among poppies; we shot wild ducks in the poppies. Even wretched little hovels in the mountains were generally attended by a poppy patch.

The ducks, called locally opium ducks, which frequently supplied us with a meal, do really appear, as affirmed by the natives, to stupefy themselves by feeding on the narcotic vegetable. We could walk openly up to within 20 yards of them, and even then they rose very languidly. We are not, however, compelled to believe with the natives that the flesh of these birds is so impregnated with laudanum as to exercise a soporific influence on the consumer. They are found in great numbers in the plain of Tung-ch'uan, in Northern Yünnan, and turn out to be the *Tadorna vulpanser*.

In the same district, and in no other, we met with the *Grus cinerea*, an imposing bird, which is also a frequenter of opium fields.

The poppy appeared to us to thrive in every kind of soil, from the low sandy borders of the Yang-tzu to the rocky heights of Western Yünnan; but it seemed more at home, or at any rate was more abundant, in the marshy valleys near Tung-ch'uan, at an elevation of 7060 feet (7150 feet, according to Garnier).

I am not concerned here with the projects or prospects of the Society for the Abolition of Opium; if, however, they desire to give the strongest impetus to its growth in Yünnan, let them by all means discourage its production in India.

The trade route from Yünnan-fu to T'êng-yueh is the worst possible route with the least conceivable trade. It is actually dangerous to a cautious pedestrian, not on account of the steep ascents and descents which constantly confront him—time, patience, and a proper conservation of breath suffice to overcome these—nor from the precipices which await the unwary, but from the condition of the path itself. This is paved throughout the whole distance, except on some of the high downs and ridges —a proof, if any were wanting, of the former importance of the route. The paving is of the usual Chinese pattern—rough boulders and blocks of stone laid somewhat loosely together on the surface of the ground: "good for ten years and bad for ten thousand," as the Chinese proverb admits.

On the level plains of China, in places where the population is sufficiently affluent to subscribe for occasional repairs, this system has much practical value. But in the Yünnan mountains the roads are never repaired; so far from it, the indigent natives extract the most convenient blocks to stop the holes in their hovel walls or to build a fence on the windward side of their poppy patches. The rain soon undermines the pavement, especially where it is laid on a steep incline; whole sections of it topple down the slope, leaving chasms a yard or more in depth; and isolated fragments balance themselves here and there, with the notorious purpose of breaking a leg or spraining an ankle.

The track often exhibits very much the appearance of a London road when "the streets are up," and one almost looks for the familiar gas-pipes. It is a joyous moment for the traveller when he reaches a sandy unpaved down, and can use his eyes for other purposes than that of selecting the stone which is least likely to break his neck.

In some parts, however, of the unpaved route the ground splits vertically, and

huge flakes of earth, carrying the path with them, peel away into a gully or precipice. This would probably not be dangerous to a pedestrian if he were moderately cautious, and he would soon be rendered so by the sight of the body or bones of some unlucky mule which has accompanied the landslip.

By an improved system of paving and a better selection of gradients, the route might be made convenient enough for carriages by mules and coolies; but it seems hopeless to think of making it practicable for wheel carriages. The valleys, or rather abysses, of the Salwen and Mekong must long remain insuperable difficulties, not to mention many other obstacles.

I do not mean that it would be absolutely impossible to construct a railway. A high authority has informed me that if shareholders will provide money, they will always find an engineer to spend it. By piercing half-a-dozen Mont Cenis tunnels and erecting a few Menai bridges, the road from Burma to Yünnan-fu could, doubtless, be much improved.

It seems to have been assumed by the members of Colonel Sladen's mission that when T'êng-yueh is reached, the obstacles to a highway into Yünnan have been surmounted. The fact is that the difficulties begin at T'êng-yueh. All homage to Dr. Anderson for his careful consideration of the subject. The Doctor has our humble corroboration for his assertion that a practicable road might be constructed, without much difficulty, through the Kakhyen hills to Manwyne.

From that village to T'êng-yueh the route is direct and easy; but T'êng-yueh draws whatever prosperity it possesses from the Ta-pêng valley; the trader is still separated by many steep miles from Yung-ch'ang, and when he arrives at that city he will fail to find a market. He must struggle on to Tali; in the quarterly fair he may meet with a certain demand for pedlery, but for little else. It is not to be supposed that however energetic the British merchant is, or ought to be, he will attempt the wild route of Yünnan-fu; but in the event of his attaining that capital, he will suddenly be aware that foreign manufactures can be conveyed with ease and rapidity from Canton, and his intelligence will at last open to the fact that Yünnan-fu is only 400 miles distant from the sea.

Loth as most Englishmen are to admit it, the simple and evident approach to Eastern Yünnan is from the Gulf of Tonquin. But it by no means follows that the same holds true of the western part of the province. The object should be to attain some town of importance south of Yung-ch'ang and Tali-fu, such as Shun-ning, from which both those cities could be reached by ascending the valleys, instead of crossing all the mountain ranges, as must be done if the T'êng-yueh route is selected. This brings us back to the old project for a route viâ Thein-nee, which Dr. Anderson allows "has been recognised for centuries as a highway from China to Burma."

The Doctor gives an alarming account, drawn from Burmese sources, of the difficulties to be overcome, in the shape of forty-six hills and mountains, five large rivers, and twenty-four smaller ones; but until a competent observer has traversed the route this must be considered somewhat vague. The Government of British Burma might with advantage send a native, duly instructed, to decide the matter. It is disappointing to find these difficulties alluded to, without any mention of the obstacles which beset the route favoured by the Doctor.

Here is a notice, dug out of the 'Topography,' which may in some degree supply the want:—"The upper route for the elephants sent as tribute (from Burma) is by Yung-ch'ang and Pu-piao, crossing the Wu-chuang range by a narrow and dangerous track, on which horses cannot travel abreast. Beyond these mountains is the Salwen, and beyond the Salwen is the district of the Po-i (Tai) people. Still farther on, the Kao-li-kung range has to be ascended, and travelling again becomes dangerous in

the extreme. The natives construct palisades on the mountain tops as a defence. Proceeding south-west from T'êng-yueh, the three towns of Nan-tien, Muangla, and Lung-ch'uan are successively passed. Beyond Lung-ch'uan (we are now entering Burma) all is level ground, and a thousand miles of country may be seen at one view. There are no hills or gorges whatever. In ten days more we arrived at Mêng-mi, in two more at Pao-king, and in another ten at (the capital of) Burma. Ten days farther bring the traveller to Toun-goo, and yet another ten to Pegu, which is at present under a savage chief."

As this was written some 300 years ago, the latter passage can intend no disrespect to the Chief Commissioner.

But there is, after all, no necessity for Governments or merchants to be exercised about the special advantages of this or the other route. Given a certain trade, and well-devised regulations to encourage and protect it, the discovery of the easiest lines of communication may safely be left to the traders themselves.

Let us first discover the trade.

For the benefit, however, of enthusiastic path-finders, I conclude these very desultory remarks by citing from the 'Topography' an entirely new and original route:—"The lower route for tribute elephants leads from Chin-tung to Chên-yuan-fu, one day's journey, and then in two days enters the district of Ch'ê-li. Two days more bring the traveller to P'u-erh, which is subject to Ch'ê-li. This region produces tea, and contains a lofty and beautiful hill called Ming-kuang, on which a chief of Ch'ê-li resides. In two more days a great river is reached, making a bend round some 300 miles of country in which elephants breed. The hills have been named 'Chi-chien' (arrow-flight). There is here a tablet engraved in ancient times, but the inscription is undecipherable. In four days more one comes to the headquarters of the Ch'ê-li Government, situated at the foot of the 'Nine Dragon Hills,' near the great river, which is called the 'Nine Dragon River,' and is the continuation of the Black Water (Mekong).

"Travelling from Ch'ê-li eight days' journey to the south-west, one reaches Pa-pe-si-fu (eight hundred wives), a country abounding in temples and pagodas. Every village possesses a temple, every temple a pagoda; there are 10,000 villages and 10,000 pagodas. This land is called the Kingdom of T'zŭ. The ruler abhors the taking of life, and is inclined to peace, but when his enemies seized (part of his territory), he had nothing for it but to despatch an army and settle the question.

"One month's journey to the south-west lies Lao-chua, the chief of which has a son to succeed him, but no daughters. Fifteen or sixteen days westward bring one to the shore of the Western Sea in Pegu, the country of a savage chief." *

Latitudes.

The following observations for latitudes by meridian altitudes, and many others, were made with an 8-inch sextant belonging to Mr. Grosvenor.

In calculating the latitudes the barometric pressure has been neglected, as it cannot materially affect the result of observations taken in pairs north and south at short intervals of time.

Many opportunities occurred during the journey of comparing the determinations

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* *Ch'êli* is the Chinese name of Kiang Hung (or Kiang Hung of Garnier); *Pa-pe-si-fu* was the Chinese name of a medieval Shan kingdom on the Mekong, of which the capital appears to have been Muang-Yong, in about lat. 21° 10′ (see Garnier, i. pp. 385–387, and p. 479); *Lao-chua* was the Shan or Thai kingdom of Chandapuri or Vien-chang, the *Laos* of the Dutch mission of Gerard von Wusthof (1641), and of the 17th century Jesuits. —H. Y.

of Messrs. Blakiston and Garnier with my own. The only serious case of discrepancy appeared at T'ali-fu. As Mr. Garnier was in great difficulty and hurry during the few hours he spent at that city, I make bold to stand by my own result.

No.	Place.	Date.		Double Altitude corrected for I. E.	Resulting Latitude.	Mean or Corrected Latitude.	Remarks.
				° ′ ″	° ′ ″	° ′ ″	Observations—
1	Yünnan-fu	Mar. 6	Sirius	96 50 35	25 2 41		Good.
2	Ditto	„ 8	δ Urs. Maj.	105 16 25	25 2 35	25 2 44	Fair.
3	Ditto	„ 9	Sirius	96 50 25	25 2 45		Good.
4	Ditto	„ 12	δ Urs. Maj.	105 17 5	25 2 55		Fair.
5	Lao-ya-kuan ..	„ 27	Spica	109 3 50	24 57 42	24 57 50	Fair.
6	Lu-fêng-hsien ..	„ 28	δ Urs. Maj.	105 29 50	25 9 23	25 9 5	Good.
7	Ditto ..	„ 28	Spica	108 41 40	25 8 47		
8	Lu-li-ching ..	„ 29	δ Urs. Maj.	105 37 30	25 13 13	25 13 0	Fair.
9	Kuang-t'ung-hsien	„ 31	δ Urs. Maj.	105 32 20	25 10 38	25 10 20	Not good.
10	Chu-hsiung-fu ..	Apr. 1	Spica	108 56 20	25 1 27	25 1 45	Fair.
11	Ditto ..	„ 2	δ Urs. Maj.	105 15 10	25 2 3		
12	Chên-nan-chou ..	„ 3	δ Urs. Maj.	105 34 10	25 11 33	25 11 10	Good.
13	Ditto ..	„ 3	Spica	108 37 40	25 10 47		
14	Sha-ch'ino	„ 4	δ Urs. Maj.	105 39 10	25 14 3	25 14 2	Good.
15	Ditto	„ 4	Spica	108 31 10	25 14 2		
16	T'ien-shên-t'ang ..	„ 5	δ Urs. Maj.	105 49 20	25 19 8	25 19 10	Good.
17	Ditto ..	„ 5	Spica	108 20 50	25 19 12		
18	Chao-chou	„ 10	Spica	107 49 20	25 35 0	25 35 0	Satisfactory.
19	Tali-fu	„ 11	δ Urs. Maj.	106 34 40	25 41 53	25 41 48	Good.
20	Ditto	„ 11	Spica	107 35 50	25 41 43		
21	Ho-chiang-pu ..	„ 16	δ Urs. Maj.	106 20 50	25 34 59	25 34 48	Satisfactory.
22	Ditto ..	„ 16	Spica	107 50 0	25 34 38		Good.
23	Yang-pi .. .	„ 17	δ Urs. Maj.	106 31 10	25 40 9	25 40 6	Fair.
24	Ditto	„ 17	Spica	107 39 10	25 40 3		Good.
25	Huang-lien-pu ..	„ 19	δ Urs. Maj.	106 13 40	25 31 24	25 31 16	Good.
26	Ditto ..	„ 19	Spica	107 57 0	25 31 8		
27	T'ien-ching-pu ..	„ 20	δ Urs. Maj.	106 12 10	25 30 39	25 30 26	Good.
28	Ditto ..	„ 20	Spica	107 58 50	25 30 13		Hazy.
29	Chü-tung	„ 21	δ Urs. Maj.	106 1 50	25 25 30	25 25 19	Not very good.
30	Ditto	„ 21	Spica	108 9 0	25 25 8		Good.
31	Sha-yang	„ 23	δ Urs. Maj.	105 50 0	25 19 35	25 19 19	Fair.
32	Shui-chai	„ 24	δ Urs. Maj.	105 43 50	25 16 30	25 16 8	Good.
33	Ditto	„ 24	Spica	108 27 40	25 15 47		Very good.
34	Kuan-p'o	„ 25	δ Urs. Maj.	105 37 30	25 13 20	25 13 0	Good.
35	Ditto	„ 25	Spica	108 33 50	25 12 42		
36	Yung-ch'ang-fu ..	„ 26	δ Urs. Maj.	105 25 20	25 7 15	25 7 8	Fair.
37	Ditto ..	„ 26	Spica	108 45 10	25 7 2		Good.
38	P'u-p'iao	„ 28	δ Urs. Maj.	105 12 40	25 0 55	25 0 43	Good.
39	Ditto	„ 28	Spica	108 58 10	25 0 32		
40	Ta-pan-ching ..	„ 29	δ Urs. Maj.	105 12 40	25 0 53	25 0 49	Fair.
41	Ditto ..	„ 29	Spica	108 57 40	25 0 46		
42	Ho-mu-shu	„ 30	Spica	109 3 20	24 57 56	24 58 0	Good.
43	T'ai-p'ing-p'u ..	May 1	δ Urs. Maj.	105 5 30	24 57 18	24 57 8	Good.
44	Ditto ..	„ 1	Spica	109 4 10	24 57 31		Indifferent, rejected.
45	T'êng-yueh	„ 3	δ Urs. Maj.	105 14 50	25 1 58	25 1 47	Good.
46	Ditto	„ 3	Spica	108 56 0	25 1 36		Fair.

Altitudes.

Of three aneroids, which were procured at Shanghae, only one proved equal to the exigencies of the route.

Before leaving it was compared with a standard mercurial barometer, and showed an index error of −·06, that is, ·06 inches were to be subtracted from all its readings

fo give the true reading. On returning to Shanghae the comparison was repeated, and exhibited an error of + ·09. It was also tested by means of an air-pump as low as 23 inches, with a column of mercury, a few days after our return. The comparison was most satisfactory, and the needle after a short interval returned precisely to its original position.

It seems, therefore, safe to assume that for all practical ends the indications afforded by this instrument were sufficiently exact. The index error may be neglected, considering the much greater inaccuracies entailed upon absolute altitudes by weather changes. On the route under consideration the weather was, with slight exception, very equable, clear, and with a light breeze from west or south-west.

There is a difficulty in deciding what to assume as the sea-level pressure. Mr. Garnier took the mean pressure for each separate month at Macao as his basis for calculating heights in this same region. He gives these as 768 mill. for February, 766 for March, and 762 for April. These were taken in the year 1867. By the kindness of Father Lelec, Director of the Observatory attached to the Jesuit Mission at Sicawei, I am enabled to give the mean pressure at the sea-level near Shanghae for the same months in 1876:—

February	768·25
March	765·02
April	761·75

I cannot do better than employ these.

The only remaining difficulty is the question of correction for temperature. There seems nothing for this but to assume it the same for both upper and lower stations. Other small corrections may well be neglected.

The level of the Yünnan-fu Lake, according to Mr. Garnier, is 1950 metres = 6397 feet. Our determination is 6380 feet for the interior of the city, which is slightly higher than the lake.

Mr. Garnier puts the altitude of the Tali-fu Lake at 2120 metres, equivalent to 6955 feet. The level of the lake being probably some 200 feet lower than our station in the city, 7090 feet, the agreement between the two results is remarkable.

The deduced altitude of T'êng-yueh is more difficult to compare. The Sladen Mission is quoted by Colonel Yule as having fixed it at 5800 feet. Dr. Anderson, a member of that mission, puts it at "nearly 5000 feet." On Garnier's map it is set down as 1884 metres, equal to 6181 feet. These discrepancies between deductions from the same observations appear hopeless. Our determination gives the level as 5540 feet.

I append data and results to facilitate correction and future comparison.

Name of Place.	Mean of observed Pressures.	Mean of observed Temperatures.	Height.	Remarks.
Yünnan-fu	23·78	51	6,380	March 6th to 26th.
Tu-shu-p'o	23·74	69	6,640	
An-ning-chou	24·02	54	6,141	
Ch'ing-lung-shao	23·91	62	6,370	
Lao-ya-kuan	23·64	56	6,600	
Lu-fêng-hsien	24·69	56	5,420	
Lu-li-ching	23·95	53	6,620	
Hsin-p'u	24·00	68	6,340	
Shê-tzŭ	24·18	57	5,970	
Mêng-hsi-p'u	23·65	72	6,780	
Kuang-t'ung-hsien ..	23·99	60	6,230	April 1st.

Name of Place.	Mean of observed Pressures.	Mean of observed Temperatures.	Height.	Remarks.
Hsiao-yao-chiau	24·99	71	6,360	
Chü-hsiung-fu	24·11	62	6,100	
Lü-ho-kai	23·94	71	6,340	
Chên-nan-chou	23·87	57	6,270	
Sha-ch'iao	23·65	55	6,440	
Ta-fo-sstt	23·29	73	6,980	
T'ien-shen-t'ang	22·50	57	7,890	
P'u-ch'ang-ho	23·12	72	7,320	
P'u-p'êng	23·17	60	7,130	
Mu-pan-p'u	23·43	76	7,000	
Yunnan-i	23·58	64	6,680	
Ch'ing-hua-tung	23·47	59	6,740	
Chia-mai-p'u	24·07	80	5,570	
Hung-ai	24·21	60	5,590	
Ting-hsi-ling	22·65	60	7,740	
Hsin-p'u-t'ang	23·25	71	6,740	
Chao-chou	23·45	59	6,780	
Hsia-kuan	23·32	66	7,020	Probably too high.
Tali-fu	23·29	69	7,090	April 11th to 15th.
Hsiao-ho-chiang	24·74	74	5,450	
Ho-chiang-pu	24·87	57	5,150	
Ma-ch'ang	24·64	83	5,660	
Yang-pi	24·85	61	5,200	
Ch'ing-shui-shao	22·45	67	8,090	
T'ai-p'ing-p'u	23·52	60	6,710	
Shun-pi River	24·89	74	5,290	
Huang-lien-p'u	24·78	60	5,270	
Wan-sung-an	22·65	71	7,910	April 20th.
T'ien-ching-p'u	22·10	59	8,410	
P'ing-mau-shao	23·35	83	7,170	
Ch'ü-tung	24·64	60	5,520	
Yung-kuo-sstt	22·20	73	8,510	
Sha-yang	24·87	73	5,300	
P'ing-p'o	25·24	77	4,920	
Shui-chai	23·60	67	6,700	April 25th.
Tien-ching-p'u	22·32	61	8,166	
Kuan-p'o	23·68	66	6,600	
Yung-ch'ang-fu	24·35	71	5,880	
Kao-tzü-p'u	23·45	84	6,980	
P'u-p'iao	25·33	80	4,550	
Ta-pan-ching	25·56	69	4,490	
Salwen River	27·62	96	2,430	April 30th.
Village on R. B.	27·41	96	2,670	
Ho-mu-shu	24·65	71	5,560	
Hsiang-po	23·25	75	7,230	
Highest point of pass ..	20·05	75	8,730	
T'ai-p'ing-p'u	22·68	65	7,780	
Ta-li-shu	24·61	62	5,480	
Shwe-li River	25·68	62	4,300	
Kan-lan-chan	25·24	65	4,810	
Chin-t'sai-p'u	23·11	59	7,260	
T'êng-yueh-chou	24·56	61	5,540	May 3rd.

Itinerary.

The following itinerary from Yünnan-fu to Tali-fu gives the distances as estimated by ourselves, with full allowance for the windings of the road, in statute miles, and the distance in *li* as given by the local officials.

In the itinerary from Hsia-kuan to T'êng-yueh I have put side by side the

distances according to four different parties. Column A exhibits our estimate; B gives that of a Burmese Mission to China quoted in an Appendix to Dr. Anderson's 'Expedition'; C is the estimate furnished us by the Chinese officials; and D is taken from a list of distances prepared by a caravan contractor at Yünnan-fu.

ITINERARY, YÜNNAN-FU TO TALI-FU.

Date.	Name of Place.	Distance in Miles.	Distance in *li* according to Chinese.	Remarks.
Mar. 26	Yünnan-fu.			
„ 26	Pi-chi-kuan	7	30	Small village.
„ 26	Ch'ang-p'o	8¾	45	Hamlet.
„ 26	Tu-shu-p'o	11½	50	Small village.
„ 26	Anning-chou	16¼	70	Poor, small, and dilapidated city.
„ 26	P'ing-ti-shao	21½	..	Hamlet.
„ 26	Tsao-p'u	22½	95	Small village.
„ 26	Ch'ing-lung-shao	26½	110	Small village.
„ 26	An-fêng-ying	30¾	130	Wretched hamlet.
„ 26	Lu-piao	31¾	135	Half-ruined village.
„ 27	Lao-ya-kuan	35	150	Village, less poor than usual.
„ 27	Ch'ing-shui-kou	37½	162	A few cottages.
„ 27	Po-han-ch'ang	38	170	Wretched hamlet.
„ 27	Yang-nao-shao	40½	175	Wretched hamlet.
„ 27	Tâ-yao-chan	43¾	190	
„ 27	Wang-chia-wan	47½	215	A few huts.
„ 27	Huang-t'u-p'o	55½	240	
„ 28	Lu-fêng-hsien	56½	245	Very poor ruined city.
„ 29	Ta-t'zu-ssü	62	275	Five huts.
„ 29	Lu-li-ching	64½	285	Hamlet.
„ 30	Hsin-p'u	68½	305	Poor hamlet.
„ 30	Ta-shao	71½	..	Guard-house.
„ 30	Shê-t'zü	73½	335	Poor village.
„ 31	Mêng-hsi-p'u	79½	365	Hamlet.
„ 31	Kuang-t'ung-hsien ..	85½	395	City rather more prosperous.
April 1	Hui-têng-kuan	89½	410	Guard-house.
„ 1	Shih-chien-p'u	92	425	Poor hamlet.
„ 1	Hsia-yao-chan	95	435	Poor village.
„ 1	Shui-ch'ê-shao	99¼	445	Four huts.
„ 1	Ch'u-hsiung-fu	103½	465	Large city; ruinous and very thinly inhabited, public buildings falling.
„ 3	San-chia-t'ang	105¾	475	Hamlet.
„ 3	Ta-shih-p'u	110½	495	Hamlet.
„ 3	Ch'ing-yuan-shao	113¾	505	
„ 3	Lü-ho-kai	117	525	Considerable village, much ruined.
„ 3	Kao-fêng-shao	120½	540	Guard-house.
„ 3	Chên-nan-chou	123½	555	Small and very poor town.
„ 4	Shui-p'ang-p'u	128	570	Miserable hamlet.
„ 4	T'ien-hsin	128¾	580	Hamlet.
„ 4	Sha-ch'iao	131	590	Large but poor village.
„ 5	Hsin-p'u	135½	610	Poor hamlet.
„ 5	Ta-fo-ssü	137	620	A few huts.
„ 5	Tso-lin-p'u	138½	630	One hut.
„ 5	Ying-wu-kuan	141¾	640	Small hamlet and guard-house.
„ 5	Tien-shên-t'ang	143½	650	Poor hamlet.
„ 5	P'u-chang-ho	147¾	670	Wretched village.
„ 5	P'u-p'êng	150¾	680	Poor village.
„ 7	Chin-chi-miao	155	700	Ruined temple and one hut.
„ 7	Shui-p'ang-pu	156¾	..	Poor hamlet.

Date.	Name of Place.	Distance in Miles.	Distance in *li* according to Chinese.	Remarks.
April 7	Annan-kuan	157½	710	Two huts.
„ 7	Mu-pan-p'u	163½	720	Considerable village, half ruined.
„ 7	Yunnan-i	168⅛	740	Village.
„ 8	Kas-kuan-p'u	169½	..	Large village.
„ 8	Kou-t'sun-p'u	176½	770	Hamlet.
„ 8	Ch'ing-hua-tung	177½	775	Temple near cave.
„ 9	I-chiang-p'u	179⅛	785	Poor hamlet.
„ 9	Chia-mai-p'u	182⅝	800	Hamlet.
„ 9	Hung-ai	186⅝	815	Large village, half ruined.
„ 10	Ch'iao-t'ow	187¾	..	Hamlet.
„ 10	Ting-hsi-ling	189½	830	Hostel on highest point of col.
„ 10	Ta-shao	192⅝	845	Hamlet somewhat ruined.
„ 10	Hsin-p'u-t'ang	196½	860	Village nearly all ruins.
„ 10	Chao-chou	200½	875	Large and well-to-do town.
„ 11	Hsia-kuan	207⅝	908	Small town on river; much traffic.
„ 11	Tali-fu	215	935	

ITINERARY, TALI-FU (HSIA-KUAN) TO T'ÊNG-YUEH.

Date.	Name of Place.	A.	B.	C.	D.	Remarks.
		miles	miles	*li*	*li*	
April 16	Hsia-kuan	..	..	..	..	Fortified town.
„ 16	T'ang-tzu-p'u	2½	..	10	..	Poor hamlet.
„ 16	Shih-ch'uan-p'u ..	5⅛	..	25	..	Very small hamlet.
„ 16	Mao-tsão-t'ang ..	7½	..	..	..	Hamlet.
„ 16	Hsiao-ho-chiang ..	9½	..	45	..	Hamlet.
„ 16	Ho-chiang-p'u* ..	10½	11	50	55	Small village near junction of streams.
„ 17	Chi-i-p'u	12	..	65	..	Hamlet.
„ 17	Chin-niu-tün	13⅝	..	80	..	Hamlet.
„ 17	Ma-ch'ang	16½	..	90	..	Hamlet.
„ 17	Yang-pi	19⅝	23	100	110	Walled town on river.
„ 18	Pei-mên-p'u	22	..	110	..	Hamlet, now building.
„ 18	Ch'ing-shui-shao ..	27	..	140	..	A few huts.
„ 18	T'ai-p'ing-p'u	29½	..	155	..	A few huts.
„ 19	Tou-po'-shao	31½	..	170	..	Three huts.
„ 19	Niu-p'ing-p'u	34½	..	185	..	Hamlet.
„ 19	Shun-pi Bridge ..	36½	..	196	..	Iron suspension-bridge.
„ 19	Huang-lien-p'u ..	38⅝	44†	210	170	Village small.
„ 20	Chiao-kou-shan ..	40⅝	..	225	..	One hut.
„ 20	Pai-t'u-p'u	43½	..	240	..	Two huts.
„ 20	Wan-sung-an	45½	..	250	..	Temple in ruins.
„ 20	Tien-ching-p'u ..	47	..	260	..	Poor hamlet.
„ 21	Sha-sung-shao ..	48⅝	..	270	..	Five huts.
„ 21	Mei-hua-p'u	50⅝	..	285	..	Three huts.
„ 21	P'ing-man-shao ..	52½	..	295	..	Two huts.
„ 21	Hei-yu-kuan	55½	..	305	..	Seven or eight huts.
„ 21	Shu-tui	56½	..	..	..	Hamlet.

* The Burmese and the Carrier's itineraries begin at this point. For the previous distances, I assume, for uniformity, that A made somewhat the same proportionate estimate with B and C with D as they did farther west.

† This also is an assumption.

Date.	Name of Place.	A.	B.	C.	D.	Remarks.
		miles	miles	li.	li.	
April 21	Ch'ü-tung, near Yung-p'ing.. ..	58¼	..	320	..	Large village, half ruins.
„ 22	T'ieh-ch'ang	62¼	..	330	..	A few huts.
„ 22	Hsiao-hua-ch'iao ..	63¾	..	..	..	Hamlet.
„ 22	Hua-ch'iao	64¾	..	340	..	Long village.
„ 22	T'ien-ching-p'u ..	66¾	..	360	..	Two huts.
„ 22	Yung-kuo-ssŭ.. ..	67¼	..	370	..	Two huts.
„ 22	Sha-Mu-ho or Sha-yang	71½	80	390	340	Large village, fair.
„ 24	Yung-fêng-chuang	74	..	..	..	Small village.
„ 24	Me-kong River ..	75	..	..	..	Iron suspension-bridge, 60 yards long.
„ 24	P'ing-p'o..	76	..	420	..	Hamlet.
„ 24	Shui-chai	77¾	..	435	410	Village.
„ 25	Tali-shao	80¼	..	450	..	A few huts.
„ 25	T'ien-ching-p'u ..	81¾	..	465	..	One shed.
„ 25	Niu-chio-kuan ..	83	..	475	..	Two huts.
„ 25	Kuan-p'o	84	96	480	..	Small village.
„ 26	Pan-ch'iao	88½	..	495	..	Large village.
„ 26	Pei-kuan-t'ang ..	90¾	..	505	..	Ruined village.
„ 26	Yung-ch'ang	93	104	515	500	
„ 28	Wo-shih-wo	96½	..	533	..	Poor hamlet.
„ 28	Kao-tzu-p'u	98½	..	550	..	A few huts.
„ 28	Lêng-shui-ch'ing ..	101	..	568	..	Small hamlet.
„ 28	P'u-piao	106½	116	585	570	Large village.
„ 29	Kuan-yin-ssŭ.. ..	110	..	600	..	Ruined temple.
„ 29	Fang-ma-ch'ang ..	111½	..	610	..	Ruined hamlet.
„ 29	Ta-pan-ching.. ..	113½	..	618	..	Four or five huts.
„ 30	Salwen River.. ..	121	..	638	..	Iron suspension-bridge, 140 yards long.
„ 30	Ho-mu-shu	125	..	673	660	Poor hamlet.
May 1	Hsiang-po	127½	..	698	..	Very poor hamlet.
„ 1	Highest point of pass	129½				
„ 1	T'ai-ping-p'u	131½	..	723	..	Very poor hamlet.
„ 2	Tali-shu	134½	..	748	..	Four huts.
„ 2	Shuay-li River ..	136½	..	758	..	Iron suspension-bridge, 53 yards long.
„ 2	Kan-lan-chan.. ..	138	146	766	770	Poor village.
„ 3	Kan-lu-ssu	141½	..	783	..	One hut.
„ 3	Chin-t'sai-pu	144	..	798	..	Four huts.
„ 3	Li-chia-p'u	148¾	..	818	..	Large village.
„ 3	T'êng-yueh, Momein	150¾	162	833	840	
				166	168	miles.

IV. ON THE CHINESE TEA-TRADE WITH TIBET.*

THOUGH very widely cultivated in Ssŭ-ch'uan, tea does not form the subject of any considerable export. With certain exceptions, it merely supplies the local consumption, and with respect to the probability of its ever being exported to foreign countries, it is enough to say that it is generally insipid to European taste, and in many cases actually nauseous. In the hilly country which bounds Ssŭ-ch'uan on the east, a variety is grown which possesses a good reputation among the natives, but the quantity is small. The eastern provinces already furnish more tea than the

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foreign market demands, and there seems reason to doubt whether even that demand will be maintained in the face of the superior and acknowledged excellence of Indian teas.

There is, however, one point of great and increasing interest in this connexion, viz. the export of Sŭ-ch'uan tea into Tibetan countries. A good deal has been written, without much circumstantial foundation, on this subject, in support of a project for supplying Tibet with Assam teas. The matter resolves itself into the consideration of route, quality, quantity, and price—subjects on which I have collected some fairly precise information.

The area on which tea for the Tibetan market is grown, and of which the city of Yachou may be considered the centre, as it is also the head-quarters of the manufacture, includes six or eight districts, of which the chief are Hung-ya, Ming-shan, Ch'iung-chou, Lo-shan, and Yung-ching, covering roughly about 2500 square miles. The trees are grown on the hill-sides or in the hedgerows of the fields, and, though abundant, are not conspicuous; indeed it requires a search to discover them, round Yung-ching at any rate, among the thick brush which covers everything but the cultivated fields. They are scrubby and straggling plants, very different in appearance from the carefully tended bushes of Eastern China, and are allowed to attain a much greater height, reaching to nine or ten feet, perhaps, on the average. The coarser leaves are about 2½ inches long. I could not discover that any care is devoted to them; but they seem to require very little, as far as the mere health of the plant is concerned, and not the excellence of the leaves. The native belief, that they are liable to injury from the attacks of certain boring insects, is probably erroneous. Insects rarely attack any species of tree unless it is already diseased.

Mr. T. T. Cooper's experience of the Yung-ching tea-plants is much the same as my own. "Unlike that which produces the tea exported to Europe," he writes, "it is a tall tree, often 15 feet high, with a large and coarse leaf. Little care is bestowed on the cultivation. It is often planted along the borders of fields and homesteads, each farmer gathering his small crop of tea, and finding a ready sale for it in Yachou to merchants who pay the Government enormous sums for the monopoly." This account contrasts strongly with the same traveller's description of the tea plantations *below* Yachou, where, he says, the best brick-tea for Tibet is grown. "The whole country formed a series of large gardens, without a single fence to divide the different plantations, and kept in the most scrupulous order, the trees, which stood about four feet high, being neatly trimmed, and planted in rows four feet apart. The numerous homesteads which were visible were surrounded with belts of large tea trees, growing to a height of 12 to 15 feet." I passed through the same country, but was not so strongly impressed with the extent of the cultivation; but in any case, the Tibetan tea-trade draws a very small contribution from trim plantations, but is supplied from shrubs which are left pretty much to themselves, and for all the traveller can see might be wild plants.

They yield tea available for the market in the fourth year of growth, and for many subsequent years. The harvest is ready in the end of June, and there are three pickings; the best is the young upper leaves from trees of all ages, the second consists of the leaves of young plants, and the third includes everything else that can be spared, being mostly twigs and sticks, with a scant proportion of coarse foliage. The Chinese are epicures enough to retain all the first quality for themselves, and most of the second, asserting that the Tibetans—whom, by the way, they regard as savages—would not appreciate them. The tea of Tibetan consumption consists, therefore, almost entirely of the merest refuse. I saw great quantities of this being brought in from the country on the backs of coolies in bundles eight feet long by nearly a yard broad, and supposed it to be fuel; it looks like brushwood, and is in fact merely

branches broken off the trees and dried in the sun, without any pretence at picking. It sells in Yung-ching for 2000 cash a picul at the outside, and its quality may be judged from a comparison of this price with that of the common tea drunk by the poorer classes in the neighbourhood, which is about 20,000 cash a picul. It is therefore no exaggeration to say that the tea of the Tibetan market is ten times worse than the worst tea in China.

Having purchased this tea brushwood, the manufacturers proceed to make it up for the ignorant Tibetan, as they themselves call him. The leaves and twigs, already sun-dried, are steamed in a cloth suspended over a boiler. The mould stands close by, four stout boards set up on end and secured with bitts, the interior having a section of about nine inches by 3½. Inside it is placed a neatly woven mat basket, somewhat smaller in section than the mould; the steamed and softened leaves with the finer twigs are dropped into the cavity by small quantities at a time, and a little rice-water being added to agglutinate the mass, it is consolidated, layer after layer, by forcible blows from a wooden rammer shod with a heavy iron shoe. The coarser sticks are dried and ground to powder, and interspersed *ad libitum* among the conglomerate of leaves and twigs. The basket being flexible, and a little smaller than the mould, keeps the cake from taking the angular shape which it would otherwise assume; the corners being rounded off, it is less liable to injury from the hard knocks it will have to encounter on the road to Tibet. The mould is taken to pieces, the cake, with its mat envelope, is brought back to the fire over which its composition was originally steamed, and when it is thoroughly dried, the ends of the envelope are closed up, and the long narrow package, called a *pao*, is ready for transport to Ta-chien-lu. This was the process of manufacture as I saw it conducted in Yung-ching. The cake thus formed is fairly dense when it issues from the mould; but the drying and the casualties of the road considerably loosen its consistency; and as the tea is weighed in its steamed condition, the theoretical weight is much reduced when it is dried. The quantity of wet tea in the Yung-ching packages is fourteen catties, which diminish to about eleven. The Yachou cakes are longer, and weigh, or purport to weigh, eighteen catties in the saturated state. On arrival at Ta-chien-lu the cakes are cut into portions which then receive the name of "bricks" (*chuan*) and are repacked. "Brick," however, is hardly an appropriate term. They are rather clods of not very closely matted foliage some nine or ten inches by seven, and three inches thick, containing a good deal more stick than leaf.

The best kind of tea, Mr. Cooper was informed, "is spread in the sun till slightly withered, and then rolled with the hand until moist with the exudation of the sap. In this state it is rolled into balls about the size of a large tea-cup, and laid up until it ferments. It is then ready for the wooden brick moulds." I heard nothing of this, but there is no reason for doubting the credibility of Mr. Cooper's informant. Such a preparation must, however, be rare and exceptional.

The packages are conveyed to Ta-chien-lu by tea-porters or on mule-back. A porter carries twice as much as a mule, but a mule travels a good deal more than twice as fast as a porter. The man's burden is arranged on a light wooden framework disposed along the whole of his back, and rising in a curve over his shoulders and high above his head, the structure being supported by a couple of slings, generally made of coir, through which his arms are passed. The great weights that can be carried in this manner are certainly astonishing. Von Richthofen writes, "There is probably no road in the world where such heavy loads are carried by man across high mountains. Six or seven pao is considered a small load; ten or eleven is the average; and, incredible as it may appear, I have seen frequently as much as thirteen carried by one man. I was assured that some men carry eighteen pao, or 324

catties." I have several times seen eighteen pao carried by a single porter, and on one occasion I overtook a rather slenderly built carrier freighted with twenty-two of the large Yachou packages. Although a pao weighs, in reality, considerably less than 18 catties, this man must have had, at the lowest computation, more than 400 English pounds on his back. I noticed that the greatest burdens were carried, not by the most muscular men, but by those of the straightest conformation; and that these porters, in spite of their excessive loads, suffer less from varicose swellings than ordinary chair-coolies. Laden thus, they take a rest after every few hundred yards' progress, and as it would be impossible for the carrier to raise his burden if it were deposited on the ground, he carries a kind of short crutch with which he supports it, without releasing himself from the slings. Travelling six or seven miles a day, and resting in the inns at night, these porters toil with their prodigious loads over two mountain passes, 7000 feet above their starting place, along a rudely paved road, where every step of the way must be picked, making the 120 miles from Yachou to Ta-chien-lu in 20 days or less, and receiving from 250 to 300 cash a day according to the number of packages they carry. The manner in which the loads are disposed is well depicted in an illustration to Mr. Cooper's work, but the packages are larger, and the burden much more top-heavy than he has represented them.

Inquiries into the quantity of the export are involved in much difficulty on account of the variation in the weights of the different packages. The best approximation *to the total production* is made by taking as a basis the number of permits (*yin*) issued annually in Yachou and Yung-ching. Three hundred cash is the duty paid for each permit; in Yachou a permit has to be taken out for every five packages; in Yung-ching for every six. The annual Yachou issue of these passes is about 80,000, and that of Yung-ching 60,000, giving 400,000 and 360,000 respectively as the total number of packages. The Yung-ching packages contain nominally between 14 and 15 catties of tea, and those of Yachou between 17 and 18 catties; but they have been gradually scamped until a brick of 60 nominal ounces now only weighs 44 ounces or less. Applying this correction, we obtain a total export of nine million catties, or twelve million English pounds. But this is merely a rough estimate, since the number of permits could only be ascertained within 15,000 or 20,000 of the truth, and they possibly do not represent the Tibetan trade alone; a good deal of the Yachou tea in all probability finds its way northwards to the districts round Mu-p'ing by other routes.

I obtained more precise figures in Ta-chien-lu. By a series of inquiries among the traders I learned that the annual duty-paying export lies between 500,000 and 600,000 packages of four bricks each; the mean of these gives 2,200,000 bricks.

The duty-paying unit in Ta-chien-lu is the "load," of six packages, nominally weighing 96 catties. I ascertained indirectly from the customs that duties were collected in 1877 upon 108,000 loads, otherwise 2,592,000 bricks, agreeing perfectly well with the traders' estimate. This result may be accepted with full confidence.

Precision must not be expected in the reduction of bricks to pounds. Leaving out of question the superior and exceptional teas, which form an infinitesimal fraction of the whole export, there remain only two qualities, or rather prices, although there are several kinds. A brick of either of these weighs, theoretically, 60 Chinese ounces; but actually the better quality only balances from 55 to 60 ounces, and the other from 42 to 45. The obstacle to exactness lies in the impossibility of knowing what proportion the export of large bricks bears to that of the smaller. I was assured that it is "as two to eight," but have no means of checking the

statement. Accepting it, however, for want of a better, this will give us the total Tibetan export from Ta-chien-lu to Batang almost exactly ten million English pounds, which, at the prices given below, are worth in Ta-chien-lu Rs. 1,814,400, or say 160,000*l.**

An addition of no great importance should perhaps be made for the tea which escapes the payment of duty. The smuggled total cannot be great, since there is but one route to Ta-chien-lu, closed in as it approaches the town by steep mountains covered with perpetual snow. But there is an item, too considerable to be altogether neglected, which enters Tibet as part of the baggage of officials, and which escapes all duties except those on the permit. Other goods, such as silk, also cross the frontier in this way; but it is mostly by means of tea that the Chinese resident officials feather their nests. Of these administrators and their gains, the Tibetans say, "They come to our country without trowsers, and go away with a thousand baggage-yaks."

At Ta-chien-lu the tea passes into Tibetan hands, and being wrapped, like all Tibetan goods, in skins, is conveyed on pack-saddles to Batang. The saddle is a much lighter contrivance than the cumbrous framework employed by the Chinese, and is probably equal in efficiency to any that has been invented. Two light boards, not more than 14 inches long, thickly padded with cloth and felt, are connected by two wooden bows. The girth is drawn close to the fore-legs, and a breasting which lies very low down on the animal's breast, is made fast, not to the saddle, but to the girth. A breeching, lying still lower than the breasting, is also connected with the girth; but in addition to this the saddle-boards are secured to a crupper consisting, in the cases I saw, of a straight stick a foot long, although the Tibetans employ for riding ordinary cruppers covered with soft leather.† From the bows, which stand high on the animal's back, loops of hide depend, and the packages are inserted into these, or unshipped, almost in an instant. The saddle and all its appurtenances, weighed by myself, balanced sixteen English pounds, which does not of course include the numerous layers of sheep-skin saddle-cloth. The boards are nearer together, and consequently lie much higher on the dorsal ridge than in the European arrangement. They will fit any animal, being equally adaptable by a judicious disposition of saddle-cloths to the prominent chine of a donkey, or the rotund hump of a yak. One advantage claimed for the system of suspending the packages in loops is that, if the burden strikes a projecting rock or other obstacle in a dangerous pass, it becomes detached, and falls down the precipice without overbalancing the animal. A horse, mule, or yak carries by this means a load not exceeding 160 lbs.; a *dzo*

* There must be some mistake or misprint here. According to Mr. Baber's figures, the number of better class bricks will be $\frac{2}{10}$ of 2,592,000, or 518,400. These weigh from 55 to 60 Chinese ounces each; say 57½, which will give the total weight of the better class tea 29,808,000 Chinese ounces or 1,863,000 catties, equal to 2,484,000 English pounds. The number of inferior class bricks will be $\frac{8}{10}$ of 2,592,000, or 2,073,600. These weigh from 42 to 45 Chinese ounces each; say 43½, which will give the total weight of the inferior class tea 89,164,800 Chinese ounces or 5,573,425 catties, equal to 7,431,233 English pounds. The total weight in English pounds will therefore be 2,484,000 + 7,431,233, equal to 9,915,233, or as Mr. Baber says, almost exactly 10 millions.

The value of the better class tea, however, will be 2,484,000 lbs. at 3·4 annas, 527,725 rupees. The value of the inferior class tea will be 7,431,233 at 2·7 annas 1,254,021 rupees, and the total value of the two classes will be 527,725 + 1,254,021, equal to 1,781,746 rupees. Taking the rupee at 1*s.* 8*d.*, this would amount to 148,479*l.* —[W. G.]

† The straight stick was the invariable form of crupper noticed by me in this country.—[W. G.]

is capable of supporting 240 lbs. The dzo is a hybrid between a cow and a yak, and is a much larger beast than his sire. The yak's forehead is round; that of the dzo is flat; his horns are larger and his tail longer and less hairy. He costs three times as much as a yak. The male dzo is the ploughing animal of Tibet. The female yields a greater quantity of milk than any other bovine, and the butter, which keeps good for a whole year, is the best for making tea—a fact which will palliate this digression.

The manufacturer is of course not necessarily, nor I believe often, the exporter. The comparison of expenditure and profit runs thus, taking four bricks of common tea as the unit:—

	Cash.
Eleven catties of leaves, &c.	200
Dues on permit	50
Dues at Lu-ting Bridge and Ta-chien-lu	36
Freight from Yung-ching to Ta-chien-lu	320
Preparation and packing (say)	100
	706
Sale at Ta-chien-lu	1240
	534

A brick of the common tea, which forms about four-fifths of the whole trade, weighs from 42 to 45 Chinese ounces, or say 60 English, and sells in Ta-chien-lu for Tls. 0·2, and in Batang for Tls. 0·32 or one rupee. The better quality weighs 76 English ounces, costing one rupee in Ta-chien-lu and Tls. 0·45 in Batang. In other words, the price in annas per English pound is—

	Ta-chien-lu (annas).	Batang (annas).
Better quality	$3\frac{4}{10}$	$4\frac{1}{10}$
Common ditto	$2\frac{1}{10}$	$4\frac{3}{10}$

I was told that Lhassa prices are about double those of Batang. From Ta-chien-lu to Batang there are eighteen stages, and from Batang to Lhassa forty-six. Any deviation from this main route increases the price enormously; at Yerkalo, for instance, which is only seven stages or so from Batang, but not on the high road, tea is as dear as in Lhassa.

Mr. Cooper was widely misled on these points. He evidently deduced his prices per pound from the cost of a pao, having understood by that term one of the ordinary packages of 18 theoretical catties. But the pao, by which permits are issued, and tea is sold and quoted, is five large packages. Mr. Cooper's results * are consequently five times too great. Prices were much the same in his time as at present.

It is probable that most of the tea which leaves Ta-chien-lu is paid for in rupees, as the export of Tibetan woollens cannot do much more than balance the supply of cotton cloth and silk. The rapid influx of these coins during the last fifteen years is remarkable; before that period they were rare, but have now become the currency of Tibet, and are counted, instead of being valued by weight. Great quantities are melted down by the Chinese in Ta-chien-lu, the Tibetans being unable to reduce them. Mr. Cooper alludes to the practice of melting them in Lhassa, but we know from Abbé Huc that the smiths of that city are Nipalese or other foreigners. On my asking a Tibetan why it was necessary to melt them down at all, he replied

* This refers to page 410 of Mr. Cooper's 'Pioneer of Commerce'; but what he there writes conflicts with his previous remarks on page 173.

that if they did not do so, they would have no use for such an immense quantity. It is clear that there must be a trade of no small proportions between Tibet and India. For exchange with Chinese silver in Ta-chien-lu, the rupees are weighed against the silver, and two rupees are added for every ten Chinese ounces. Russian roubles are beginning to put in an appearance, but only three of them were found in a payment of 1800 rupees.

A coin is called in Tibetan *tchran-ka*. Rupees are called *Pei-ling tchran-ka*, i. e. English coins; the derivation of *Pei-ling* is unknown. Another name is *Pei-ling ngo-mu*, i. e. English woman-face. Georgian and Victorian rupees are distinguished as *p'o-tu* and *mo-tu*, meaning male-head and female-head. Those which bear a crowned presentment of Her Majesty are named *Lama tob-du* or vagabond Lama, the crown having been mistaken for the head-gear of a religious mendicant. The same coin is known to the Chinese as *Lama-t'ou*, Lama's head, doubtless a corruption of the Tibetan.

Before the introduction of rupees, tea-bricks were used as currency, and even now in Batang a brick of ordinary tea is not merely worth a rupee, but in a certain sense *is* a rupee, being accepted, without minute regard to weight, just like the silver coin, as legal tender. Since the influx of rupees this tea-coinage has been very seriously debased, having now lost 25 per cent. of its original weight. The system of a double monetary standard is approaching its end, at any rate in Tibet. For in May last the Lamas of the Batang monastery having hoarded a great treasure of bricks, found it impossible to exchange them at par, and had to put up with a loss of 38 per cent.

To the Tibetan, tea is more than a luxury; it is an absolute necessary. Deprived of the costly, but indispensable, astringent, he suffers from headache, grows nervous, restless, out of condition, and altogether unhappy. In outlying districts, mothers are careful to keep the seductive beverage from their children for fear lest they should grow up unable, on occasion, to go without it. And yet, to European taste, the infusion, as prepared by Tibetans, is the remotest possible imitation of tea.

The Tibetan tea-pot is a wooden churn, much like a butter-churn, into which the boiling infusion is poured through a strainer; a little salt is added, and some twenty strokes applied with a dasher pierced with five holes. A lump of butter is then thrown in, and the compound is again churned with from 100 to 150 strokes, administered with much precision and regularity. The tea is then ready for drinking. It will be remarked that, with the substitution of salt for sugar, the Tibetan preparation is of much the same composition as the tea drunk in England; but the presence of the salt is not perceptible, and with the best intention in the world I could detect no flavour of tea. It is impossible accurately to describe the taste of the infusion; but to force a comparison, it is something like weak English tea with rich milk, but without any sugar or *tea*. And yet nobody would mistake it for milk and water, still less for butter and water; for the tea principle affects the flavour, while itself becoming modified into some un-tea-like astringent.

It is evident that astringency is the property desired, seeing that the many thousand Tibetans who cannot afford tea use oak bark in its stead.

The tea-cup of the Tibetan is a wooden bowl, not seldom an object of high price and elaborate workmanship, cased in precious metals and encrusted with jewels. In this he allows the tea to stand for a minute or two, and when the butter floats freely on the surface, he blows it off into another bowl. The national farinaceous food is *tsampa*, flour of grilled corn. The consumer takes up a portion of this between the tips of his fingers and thumb, and opening them with a jerk flicks it over the butter; then moulding it into consistency, he eats the immature pie-crust without further formality, washing it down with the tea. This is the characteristic nutriment

of Tibetans. Two English pounds of butter and ten ounces of tea are a liberal, but not lavish, allowance for twenty drinkers for one day.

As far as Batang is concerned, there is little prospect in all this of an outlet for Indian tea; but it is difficult to conceive how the idea of trading between Assam and that place could ever have been conceived. It possibly arose from an impression that Batang is a Chinese city, whereas it is a small Tibetan town of 200 houses, eighteen days distant from the true Chinese border by a track which, practically closed in winter, crosses four passes at various elevations between 14,000 and 17,000 feet, according to the careful and corrected observations of Captain Gill. Moreover, when the Chinese border is reached at Ta-chien-lu, the nearest city of any importance, namely, Yachou, is still seven or eight days distant, and has water communication with the sea. Setting aside, for a moment, the Tibetan roads, the only practicable way from Assam to Batang is across the Patkoi Hills to Burmah, thence into Yünnan by the Sawaddy track, and so northwards by Weisee, a distance of 750 miles,—a two-months' journey at least in such a country, whereby on arrival at Batang the freight alone, calculated at Tibetan rates, would be half as much again as the market price of Chinese tea.

The most direct road would of course be through Tibetan territory; but if Tibet be open, what purpose can be served by going to Batang? That town is a junction of high roads to Ssŭ-ch'uan, Yünnan, and Lhassa, and is consequently a point of great political importance to the Chinese Government. But its sole commercial significance worth the name, although there is a good deal of peddlery, is derived from the passage through it of Yerkalo salt and Yachou tea on their way westwards. Now Assam is admirably placed for taking this tea-trade in flank, and might even supply Western Tibet, without seriously affecting the Yachou export, since the whole quantity of the latter would only suffice for the consumption of a million Tibetans. The difficulty of crossing the Himalayas may be adduced as the most obvious impediment; but if any track whatever exists—as we know it does—it cannot be more formidable than the icy passes encountered by Abbé Huc on his journey from Lhassa to Ta-chien-lu by the Chinese tea-route.

The prices above quoted of about half a rupee per lb. in Lhassa do not, perhaps, at first sight appear to hold out a very encouraging promise of a direct tea-trade from Assam to Tibet; but, as already remarked, the price rises in a ratio altogether out of proportion to the distance of the market from the tea-route, and very quickly reaches a figure which puts the article beyond the purchasing power of the country people. This state of things arises not from the difficulties and dangers of the bye-roads so much as from the policy of the Lamas, who, being the traders and money-lenders of the country, and the only capitalists, have many motives for confining the traffic in a channel which they can most easily direct to their own advantage. They make greater and steadier profits by restricting the trade to one main line, along which they can monopolise it, than they could by opening new markets in districts at a distance from their lamaserais, where it would be liable to stray from their command. This they can the more easily effect, because the supply of tea is far inferior to the demand, and because it is not subject to much fluctuation. Mr. Cooper writes very strongly on these points, and frequently recurs to them—"The whole business in life of the Tibetans seems to be to procure a sufficiency of tea; and it is no cheap luxury; for the Lamas, keeping in their hands the retail, as the Chinese do the wholesale, trade, by this means reduce the people to absolute dependence on them, exacting in return for the precious article labour and produce. Grain, yaks, sheep, horses, and even children, are given to the rapacious priesthood in payment for tea." This statement may appear to be tainted with exaggeration, but it accords pretty exactly with the account I have received, among others, from an

apostate Lama. Under such circumstances, it will be admitted that the free circulation of tea-bricks is not likely to be encouraged. The practice of hoarding tea in the lamaserais is, by itself, sufficiently convincing. It may be taken as certain that the vast majority of Tibetans are unable to procure tea, or at any rate enough of it; that they are eager to purchase it; and that they would pay for it prices of which half a rupee may be regarded as the minimum; moreover, that the districts where it would sell most easily and advantageously are those which are furthest removed from the Chinese tea-route, or, in other words, those which are nearest to Assam. It is superfluous to remark that the merest sweepings of the Assam godowns would make better tea than the Tibetans have ever drunk.

In a few years' time, when Tibet has been opened, we shall begin to ask one another how it came about that the most powerful and progressive of Asiatic empires should have suffered the long frontier of its most flourishing provinces to be completely closed for so many years to the passage of any individual of the governing race, and that not by a formidable rival but by one feeble Tibetan State, for there are many Tibetan States besides Lhassa-dé. It is generally assumed that the obstacles to intercommunication are of a physical nature; but if so, there would be no trade, whereas evidences of a very extensive exchange abound, even so far east as Ta-chien-lu, in the use of rupees and of many articles of Indo-European origin. To mention some of the more trivial—but on account of their very triviality the more convincing—instances, the common dinner-plates of the Tibetans, when they use any, are of tin, stamped in the centre with an effigy of some European celebrity. In those which I examined I recognised the third Napoleon, the Prince and Princess of Wales, and Mr. Gladstone, all supposed by the natives to represent Buddhas of more or less sanctity. Round the rim of the plate, in all cases, were stamped the letters of the English alphabet, from A to Z.* The most desirable buttons, again, are four-anna pieces, and so strong is the demand, that three of these are worth a rupee. British army buttons are as common as blackberries.† Even corkscrews are offered for sale in Ta-chien-lu, although no one can explain their use. The presence of such miscellaneous and cheap articles testifies to the facility of trade, while the great quantity of rupees proves its extent. But although commercial intercourse crosses the whole breadth of Tibetan countries, diplomatic relations have not yet penetrated to the nearest of them, Lhassa-dé. Yet the distance from Calcutta to Lhassa, in a direct line, is less than from Paris to Berlin. Until such relations are established and maintained, there can be no hope whatever of a Tibetan market for Assam teas. Exploring missions, no matter how well organised or amply furnished, can effect nothing in the interest of trade, so long as the adverse influence of the Resident Chinese Legates and of the Lamas is unchecked. No matter how short the route, or convenient the road, the hostility of these two parties would be roused to the utmost against any project for a tea-trade. Even if the goods were admitted, which is in the last degree improbable, they would be burdened with such a weight of Tibetan dues and Chinese Likin, that the British frontier would be almost the limit of profitable sale. But if the opposition were kept within fair and reasonable bounds by the exchange of a convention and the introduction of diplomatic machinery to give it effective action, the Tibetans, with their fondness for tea and their dislike of Chinamen, would be the first to welcome the best wares to the best market by the shortest road.

In the mountainous region west of Kiating I discovered two kinds of tea of so unexpected a nature that I scarcely venture to mention them. In the monasteries

* These were noticed by me near Batang ('River of Golden Sand,' ii. p. 209).—[W. G.

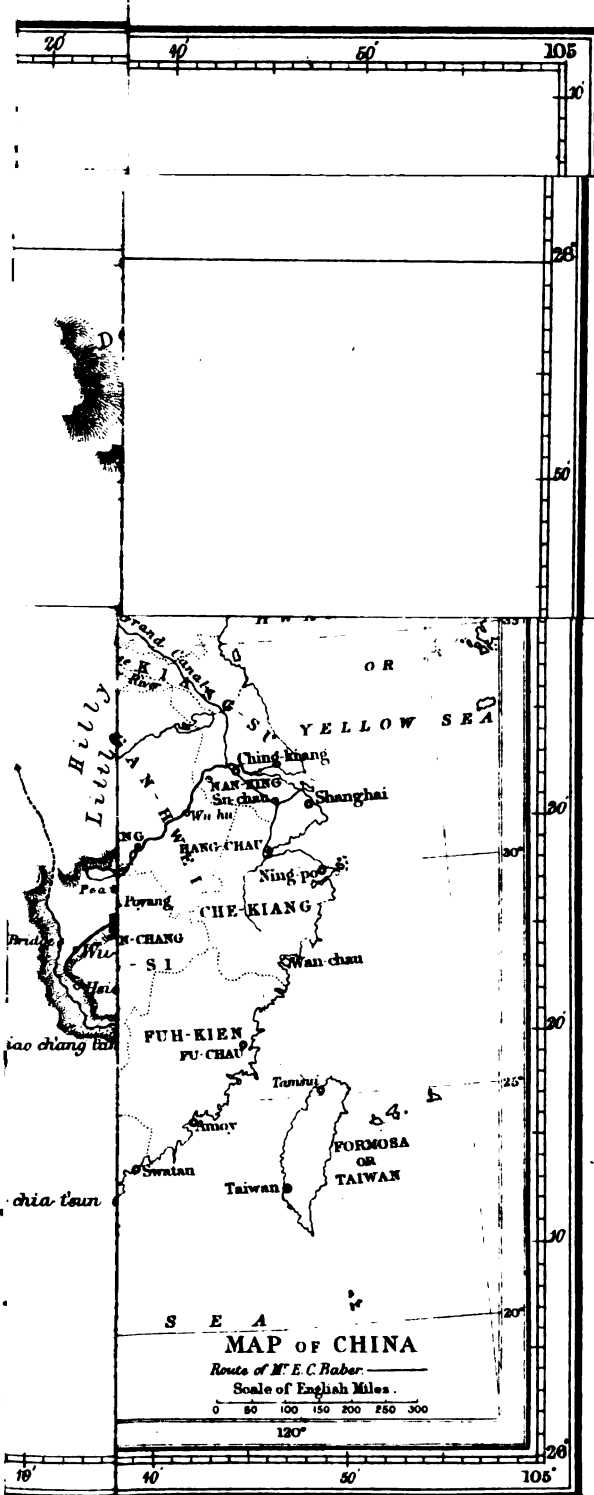
† See also 'River of Golden Sand,' ii. p. 132.—[W. G.]

on Mount O-mi, or as it is locally named, for brevity's sake, Mount O, I was regaled by the monks with an infusion of tea which is naturally sweet, tasting like coarse congou with a plentiful addition of brown sugar. It is only grown on the slopes of the mountain, and by the monks; two days' journey further west no one had even heard of its existence. I did not see the plant growing, and it is just possible that it is not tea at all; the prepared leaf, however, has all the appearance of tea, and no one on whom I have tried the experiment has taken it for anything else, or remarked upon its peculiarity, beyond inquiring why I put so much sugar in it. I am forwarding a specimen to Shanghai, without giving any hint of its singularity, for professional examination, in order that a tea-inspector's report may be appended to these notes.

The other variety, preposterous as the statement may appear, has a natural flavour of milk, or perhaps more exactly of butter. What is more interesting than this oddity is the fact that it is wild tea, growing in its native elevated habitat without any aid from human cultivation. An unimpeachable instance of a wild tea-plant has never yet been adduced in China. It has been supposed to occur in Formosa, but the specimens I found in the north of that island had evidently strayed from cultivation. The practice of drinking an infusion made from the wild plant has, I believe, never been met with anywhere. The wild tea in question is found in the uninhabited wilderness west of Kiating and south of Yachou, at heights of 6000 feet and upwards, and was described to me as a leafy shrub 15 feet high, with a stem some four inches thick. The wild mulberry is found in the same locality. Every part of the plant, except the root, is used for making the infusion. The wood is chopped up and put into a kettle of water with the dried leaves and twigs, and being boiled, yields a strongly coloured but weak tea, possessing a buttery flavour which gives it a certain resemblance to the Tibetan preparation. It cannot be obtained in Yachou. The only place where I found it in use is the Huang-mu-ch'ang plateau, a terrace perched among the stupendous gorges of the T'ung river. I only brought away a small quantity, which unluckily was drunk by mistake; but I hope next summer to make a general botanical expedition to the district, when it will be easy to procure a plentiful specimen.

E. Colborne Baber.

Chung-Ching,
25th January, 1879.


20'
40'
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D
OR
YELLOW SEA
Ching-kiang
Shanghai
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Foo
Foochang
CHE-KIANG
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- S I
Swan-chau
FUH-KIEN
FU-CHAU
Tamsui
Amoy
FORMOSA
OR
TAIWAN
Swatau
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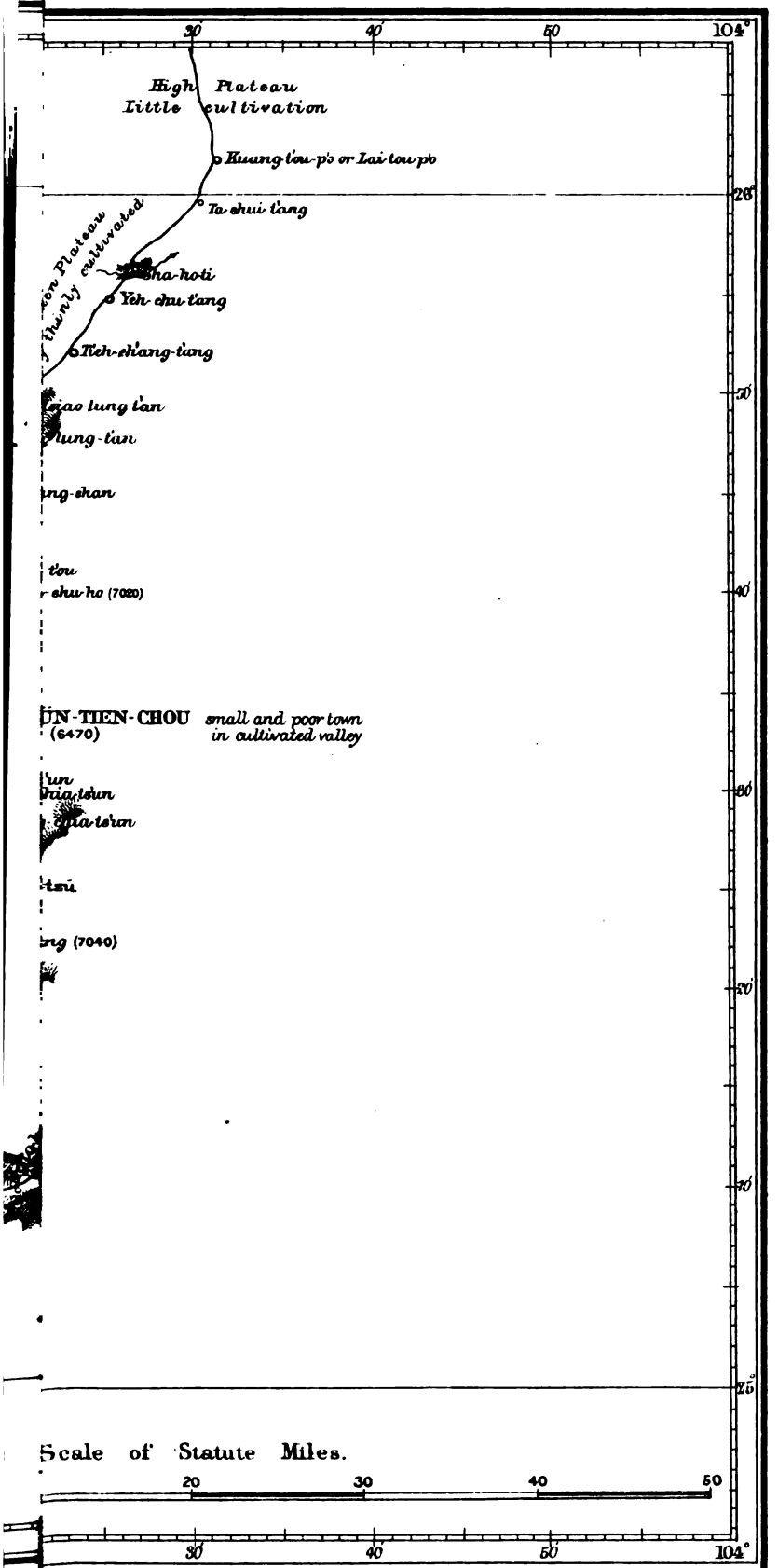
chia-tsun
S E A
MAP OF CHINA
Route of Mr E. C. Baber.
Scale of English Miles.
0 50 100 150 200 250 300
120°
19'
40'
50'
105'
Stanford's Geographical Estab!


20
40
50
104°
High Plateau
Little cultivation
Kuang-t'ou-p'o or Lai-tou-p'o
Ta-shui-t'ang
Sha-hoti
Yeh-shui-t'ang
T'eh-ch'iang-t'ang
UN-TIEN-CHOU small and poor town
(6470) in cultivated valley
(7040)
Scale of Statute Miles.
20
30
40
50
104°

RECENT GEOGRAPHY OF CENTRAL ASIA;

FROM RUSSIAN SOURCES.

By E. Delmar Morgan.