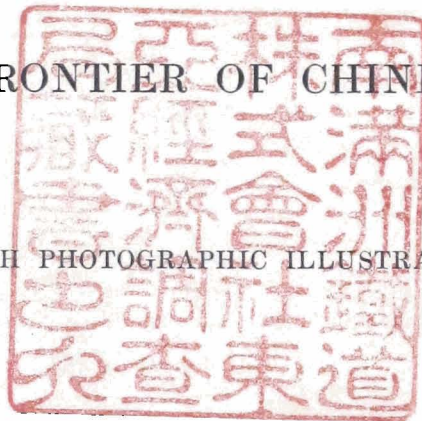


JOURNAL
OF A
TOUR THROUGH SPITI,

TO THE FRONTIER OF CHINESE THIBET,

WITH PHOTOGRAPHIC ILLUSTRATIONS.



BY PHILIP HENRY EGERTON,

DEPUTY-COMMISSIONER OF KANGRA.



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“ Saxa, nives, sylvas, majestatemque locorum
 Terrificam stupet; en! oculis errantibus ultro
 Sese aperit rerum / novus et mirabilis ordo.”





Frontispiece.—KANGRA FORT.

TO

SIR ROBERT MONTGOMERY, K.C.B.

LIEUTENANT-GOVERNOR OF THE PUNJAB,

THIS WORK IS RESPECTFULLY DEDICATED BY

THE AUTHOR.

P R E F A C E.



THE Himalayan Mountains, which in former years have attracted the Tourist, the Geologist, the Botanist, and the Sportsman, are daily acquiring a more extended interest as containing considerable quantities of forest, or jungle land, which if cleared and brought under tea cultivation, are capable of affording to many of our countrymen, if not vast fortunes, at least comfortable affluence, with cheerful and pleasant occupation in a good climate—advantages well worth the consideration of those, who with a small capital in ready money, are not prepared to enter the lists to compete for public employment by intellectual cramming.

But besides this there are certain routes by which the Himalayas may be crossed into Thibet and Tartary, by which a small amount of traffic is actually carried on between the Chinese Empire to the East, Yarkund to the West, and British India on the South, a traffic which has continued for centuries to struggle against the most jealous opposition, and which, if really opened out by the fair and moderate exercise of England's diplomatic influence, would bring manufactures into the heart of Central Asia, extending civilization to the barbarous hordes which people those vast tracts, and enriching the manufacturers, exporters, and carriers of European produce, as well as the Thibetan and Tartar shepherds.

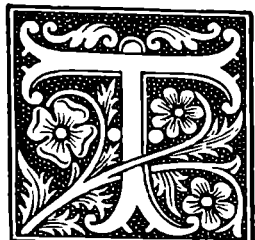
Having been for some years in charge of the Kangra District (through which one of the chief of those routes passes), and having

PREFACE.

recently made an expedition to the frontier of Chinese Thibet, and taken some photographs of people and places probably never before delineated with accuracy, I hope that a brief journal illustrated with some of the photographs may not prove uninteresting, and may possibly assist to attract attention to this magnificent field for reciprocal traffic.



JOURNAL OF A TOUR THROUGH SPITI.



TOWARDS the end of 1862, Mr. Davies, Secretary to the Government of the Punjab, published his comprehensive Report upon the State of Trade with Central Asia; which, by pointing out distinctly the wideness of the field for traffic, and the obstacles which cramp it, strengthened in me a desire which I had conceived soon after my appointment to the Kangra District, viz., to take advantage of the small space where our territory (the Province of Spiti) joins with Chinese Thibet, and to turn, if possible, a considerable share of the Yarkund and China traffic into our Indian dominions by that route, thus avoiding the imposts, exactions, and obstructions of intervening states, with narrow-minded rulers and covetous officials.

Having communicated to Sir Robert Montgomery, K.C.B., the Lieut.-Governor of the Punjab, my desire to visit these remote regions (which, though actually a part of the Kangra District, had not for many years been favoured with the presence of a government officer), and to give, if possible, a practical effect to some of Mr. Davies' suggestions, I received His Honour's cordial assent, with a liberal credit for a Tosheh Khanuh,* and a thousand rupees in cash for making the route passable.

Accordingly, having made what preparations I could, I left my head-quarters at Dhurmsala on the 18th June, 1863, full of sanguine expectations of a most interesting and enjoyable expedition, and with a humble hope that my operations might, by God's blessing, help to extend civilization, and eventually Christianity, to these barbarous and pagan lands.

A reference to the small map appended (prepared by Captain Montgomerie of the Grand India Trigonometrical Survey, by whose kind permission I use it) will show that the District of Kangra proper is accessible by two main routes, viz., from Jullundhur and Umritsur. The former route is a good road at an easy gradient, and can be traversed by lightly laden carts up to Dhurmsala; the latter is not yet bridged, and being intersected by several deep and rapid torrents, is virtually impassable in the rains. With one exception (the river Chukkee), there are no engineering difficulties in the way; it is merely a question of expense.

* Literally "Present House," is the name given to the store of articles kept for presentation to native chiefs in return for the offerings made by them. The acceptance and return of presents is a privilege usually confined to the Government, but in exceptional cases permitted to subordinate officers, a debtor and creditor account being kept with Government.

The Chukkee is some 2000 feet in breadth, but might no doubt be bridged on screw piles. As this is the most direct line of communication between the shawl-weaving city of Umritsur, and the shawl-wool producing plains of Tartary, there is little doubt that the necessity of overcoming these obstacles must ere long be recognized by Government. The chief town of the district is Kangra, of whose celebrated fort (shown in some old maps as Nugurkote) a photograph is given in the frontispiece. About a mile from the fort is a temple much venerated by the Hindoos, called Bhawun. (See Plate I.) From Bhawun the view across the rice producing valley to the snow-clad Himalayas above Dhurmsala is very beautiful. A native subcollector or Tuhseeldar of revenue holds a Small Cause Court here. (See Plate II.)

The chief Courts of Justice (Deputy and Assistant Commissioner's) and Treasury are at Dhurmsala. (See Plate III.)

A Goorkha regiment is quartered in the lines below. These Goorkhas, who fought so well in the rebellion of 1857, are residents of Nepaul originally, but most of them have their families with them. Plate IV. shows a group of them.

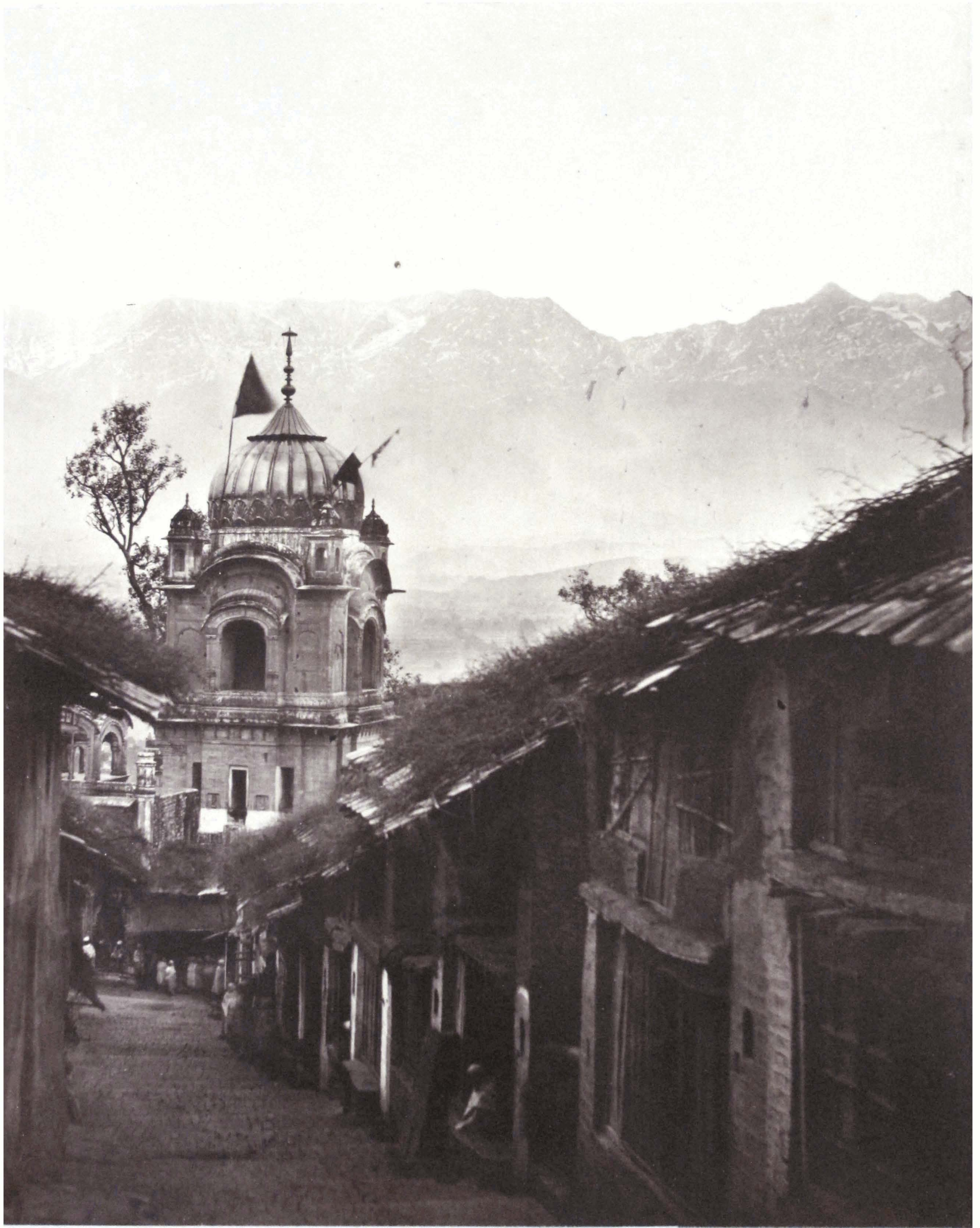
In the upper part of Dhurmsala, besides the district officers, there are several European residents, and a number of houses occupied in summer by invalids from the plains. (See Plate V.)

Plate VI. shows our little church, from which is a most beautiful view, and close to which the late Viceroy, Lord Elgin, is buried.

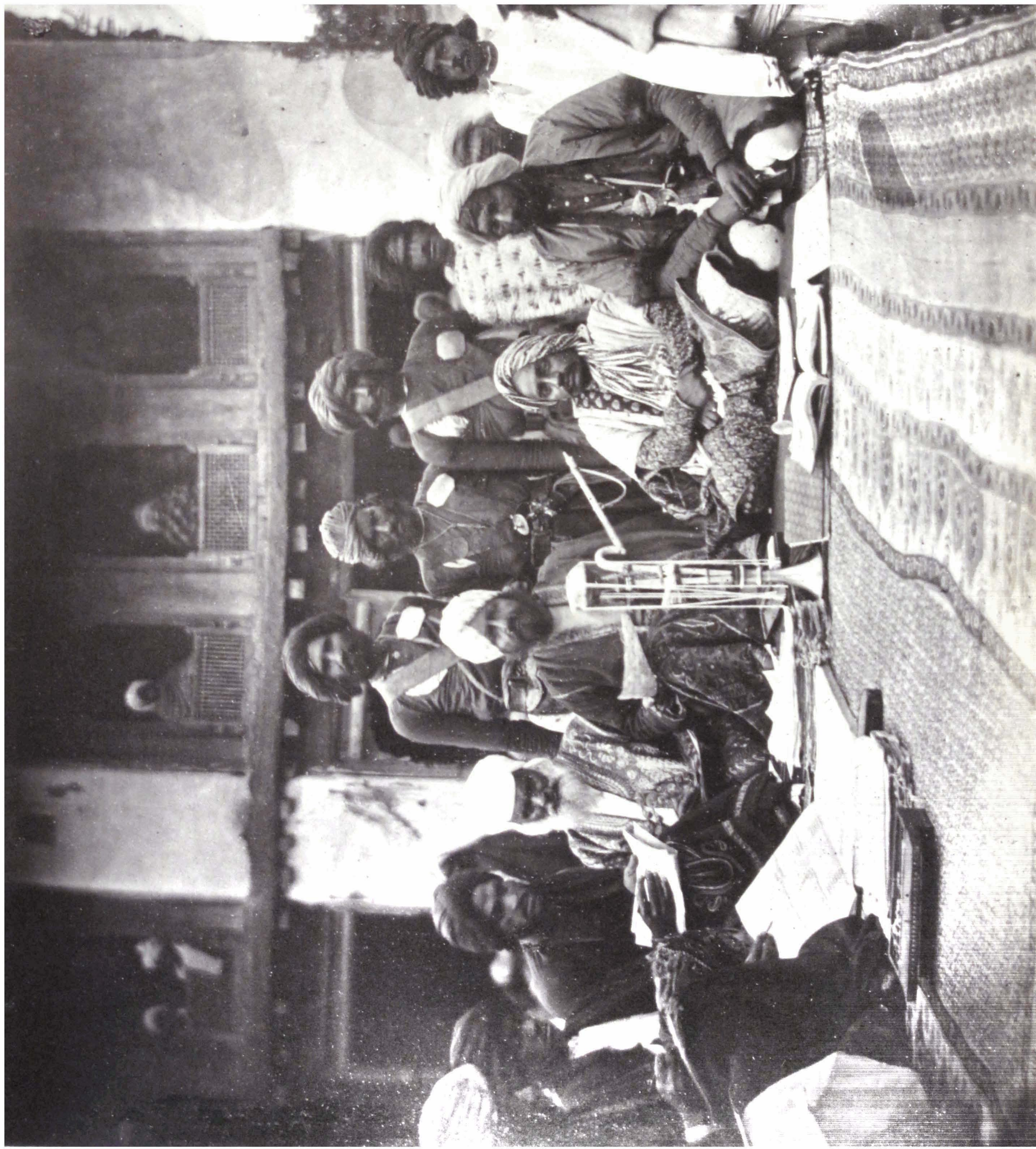
Beyond Dhurmsala, from twenty to thirty miles eastward, are the tea plantations of the European settlers, all formed round the Government plantations of Holta. Between Dhurmsala and Holta are five large torrents, which, after a fall of rain, are impassable to man or beast. These have been lately bridged on a plan of my own device for obtaining a long span with short pieces of wood, the only available timber in the neighbourhood being stunted oak (*quercus incana*). A span of eighty feet was obtained with no piece of timber more than twelve feet long. No iron work is required in these bridges, which are so cheap that the one above alluded to of eighty feet span (over the Manonee river), including masonry abutments and approaches, cost under £150.

On referring further to the map it will be seen that between Kangra District proper and the outlying province of Koolloo, the independent territory of Mundee intervenes. The reigning Raja of Mundee is a minor, and carries on his Government by means of a Council of Regency, under the superintendence of Col. Lake, Commissioner of Jullundhur, who is also my immediate official superior. Among the members of this Council of Regency is Wuzeer Goshown, who has for many years had chief control of the Mundee territory. He is an uncommonly clear-headed, long-sighted old gentleman, and besides the administration of affairs, occupies himself with innumerable commercial speculations, which in his hands always succeed. He is the greatest capitalist in these hills, and nearly all the Rajas owe him money.

Although Kangra proper and Koolloo touch one another on the northern side, yet the



1. TEMPLE OF BHAWUN.



2. TUHSELDAR'S CUTCHERRY.

spurs from great mountain ranges which divide them are there so high, that a road for ordinary traffic is impracticable, and consequently the high road to Koolloo (and thence to Ladak and Yarkund) runs for about forty miles through the Munde territory. This road, however, is secured by prescription (if not by treaty) from the imposition of any tolls. Wuzer Goshown does his best to keep it in good order, and to all intents and purposes it may be considered as running through our own territory.

My tents and servants having been despatched ten days before to Shumshee, in the valley of the Beas, about six miles beyond the Munde boundary, I followed by dawk in a dhoolee* on the 18th June. At Byjnath, thirty miles from Dhurmsala, are the plantations and residence of Captain Fitzgerald. The elevation is only about 2,500 feet above the sea, and the temperature much higher than at Holta, necessitating a summer residence on the upper hills; but the tea plants are finer than any in the valley.

The boundary between Kangra proper and Munde is crossed about two miles beyond Byjnath, and up to this point all rivers of any consequence are bridged. In the Munde territory there are only two rivers worth mentioning, viz., the Eol, below Jujroo Kooproo, which is spanned by a handsome sunga† bridge, 130 feet long; and another, about six miles further, which requires re-bridging, an old bridge having fallen down.

The road through Munde, though occasionally rather steep, is quite passable for mules and horses. A little beyond the boundary we see the tea plantation of Wuzer Goshown at Beer. Beer is in British territory, but the revenue (rs. 2000 per annum) was presented to the Wuzer for loyalty to the British Government in 1857.

A few miles further, and in Munde territory, is a tea plantation and factory belonging to the Raja of Munde.

There is a large rock-salt quarry in Munde territory, between Hurrabugh and Footikul. There are also deposits of iron-sand, which are considerably worked, both in Munde and higher up the Eol river in British territory. This rock-salt, though containing at least half refuse, is consumed through all the neighbouring hill country, and it is only near Noorpoor, at the foot of the hills, that it is met and superseded by the pure rock-salt from the salt range of the Punjab. To the north this rock-salt is used throughout Koolloo, but in the further provinces of Lahoul and Spiti, salt evaporated from the salt lakes of Thibet is used.

The Bujowra range, about 8000 feet high, separates Munde from Koolloo. The pass across this range is beautifully wooded with oak (*quercus semicarpifolia*), horse-chestnut (*goon*), plane (*mundir*), elm, cherry, toon, &c. The road enters Koolloo on the east side of the pass, at a place called Roopuroo, where are a few houses and shops, and where the first apricot trees are seen. About three miles further we enter on the upper valley of the Beas river, at

* A dhoolee is a light kind of palanqueen.

† Sunga is the name given to a kind of wooden bridge common in the Himalayas. A beam is imbedded in the bank, protruding a short distance over the water, and rising towards the extremity. A second is likewise imbedded, and, resting upon the first, protrudes a little further. Sometimes four or five beams are thus fixed on each side, till the space between the opposite points is sufficiently reduced to admit of a straight beam spanning the interval. This kind of bridge is only adapted to localities where long straight timber is available.

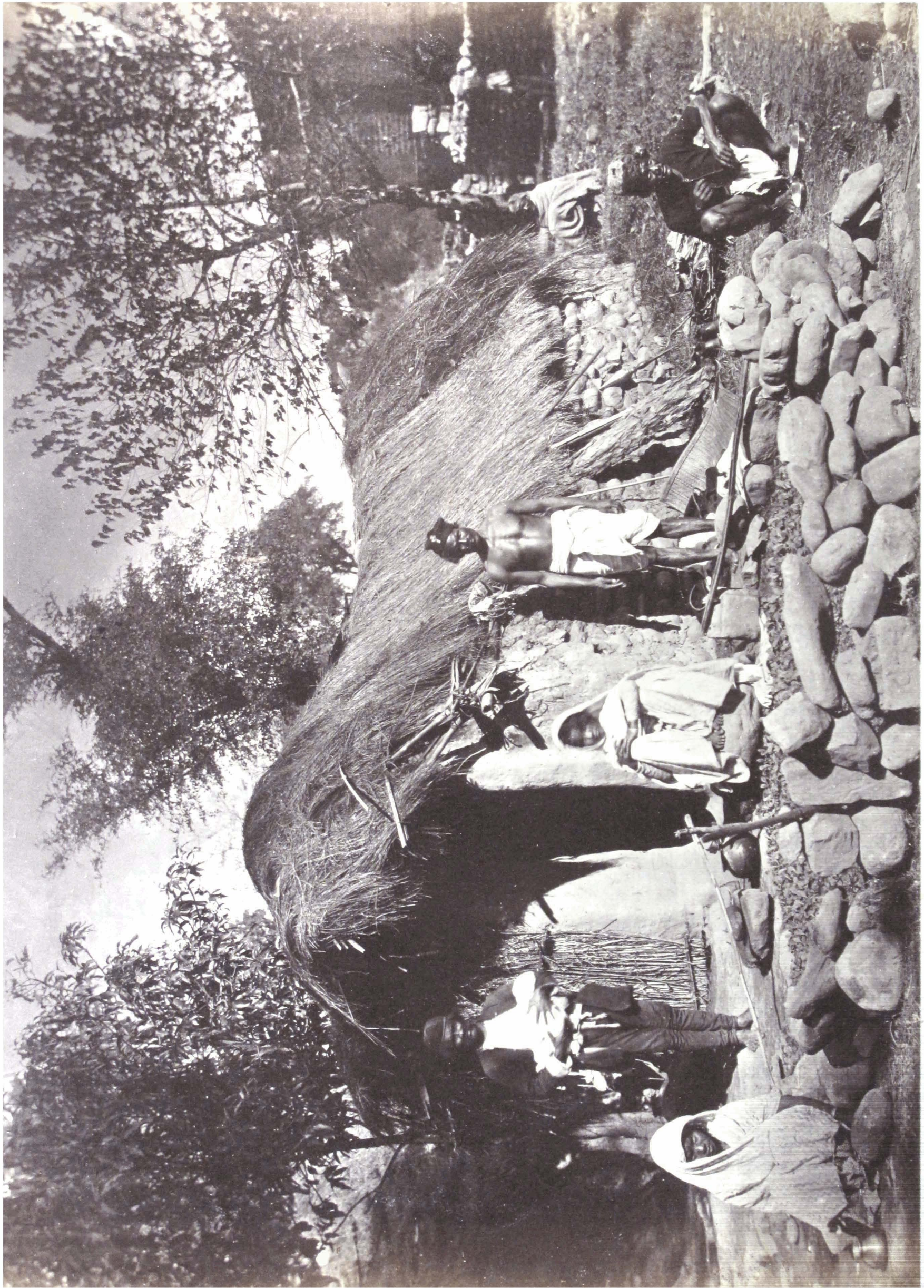
Bujowra, a large village. Here Mr. Knox has a tea plantation, which already produces tea of a very fine flavour. From Bujowra to Shumshee is four miles, over a good galloping road; and here, arriving on the evening of the 20th June, I found my tents pitched in a large wood of alders and wild fig trees, extending to the bank of the river, and making a secluded and most agreeable encamping ground.

June 21st. Being Sunday, I halted here, the rest and quiet being very pleasant after two night's dhoolee travelling. One can sleep in a dhoolee in the plains very well, but when first your head and then your heels are elevated at an angle of forty-five, sleep is a mere nightmare. I was visited here first by Wuzeer Goshown, who promised to send up a venture of goods through Spiti on his own account. Then by Rai Gyan Sing, descendant and representative of the Koolloo Rajas, and who still enjoys the revenues of a large tract of country on the left bank of the Beas. Though quite a young man, he is enormously fat—in appearance almost imbecile,—and in truth exceedingly weak and foolish. His affairs are very much involved, and he has thrown himself upon the insolvent courts; but notwithstanding, that he was allowed a liberal portion of his income for his own expenditure (the remainder being set aside to pay the creditors by instalments) he still continues to maintain an establishment which he cannot pay, on the plea that he is unable to get rid of his servants. It has since become necessary to depute one of my assistants to revise his expenditure and bring it within the prescribed limits. Rai Gyan Sing lives in the palace of his ancestors at Sooltanpoor, a very extensive building, in the style peculiar to Koolloo, built of flat slaty stones, without mortar, but strengthened and kept together by crates of wood morticed together, one of which is placed after every two feet or so of masonry. The roof, which projects very considerably, has eaves of prettily carved cedar wood (*cedrus deodara*), and is covered with coarse slates, which lie at a very graceful curve. I did not get out my photographic apparatus till afterwards, and have unfortunately no picture of this palace. A third visitor whom I saw at Shumshee was a Goossain,* named Sookramgir, who holds, on a rent-free tenure, lands which yield him rs. 1,200 per annum. He is nephew to an old Goossain who lives near Beijnath, a great friend of mine, and whom I have been able to oblige by settling some family disputes, and is a man of good manners and polite education. He lives not more than two miles from Shumshee across the river, but to visit me he went up the river eight miles to cross by the wooden bridge at Sooltampoor, and the same distance down to my camp. The reason he gave for this was a very sufficient one, viz., that the last time he crossed the river here in the usual manner, on an inflated bullock skin, he was upset and carried many hundred yards down stream, holding on to the “mussuck” as well as he could, till at length he contrived to get on to a large boulder which stood out of the water, and waited there for assistance. He was terribly buffeted by the waves, and lost shoes, turban, and other appurtenances in the struggle. The river here is extremely rapid, having a fall of nearly

* Goossains are a religious order of Hindoos. They profess not to worship idols. They are scattered about the country, and are allowed to marry; but they own allegiance to a superior of their own order, called “Mohunt,” or Abbott, and their property descends to their pupils or “chelas,” not to their children. A Goossain cannot elect his own son as his chela, but he can induce his “chela” to elect him as *his* chela, so that his son may become second in succession.



3. DHURMSALA.—Lower View.



4. GORKHA SOLDIERS AND FAMILY.

fifty feet in a mile; and looking at the way it breaks over the huge boulders scattered throughout its bed, I did not envy the old gentleman his water trip. When Lord and Lady Elgin crossed the Beas a little lower down (at Bajowra), rafts were made by putting a string bedstead on two inflated skins, as in the annexed picture, a little adornment being added.

I spent a very pleasant Sunday in this quiet wood, which I recommend to the notice of any one who wishes to feel out of the world for a season.

June 22nd. Rode up the valley to Sooltanpoor, the capital of Koolloo. The road follows the bank of the river Beas, and is good and level. Close above Shamshee, the Beas is joined by a large tributary, the Parbutee, which flows down from the east. Two days march up the valley of the Parbutee are the hot springs of Manikurn, a favourite resort of Hindoo pilgrims. Sooltanpoor is about eight miles above Shamshee, and is situated at the confluence of the Surwuree river with the Beas. The Surwuree flows down from the west, and is beautifully clear (whilst the Beas at this season is turbid and muddy), but its water is considered unwholesome.

A new Tukseel* office is in course of erection here. It was commenced four or five years ago by Mr. K., then Assistant Commissioner of Koolloo, and is a lamentable instance of refusing to learn from those around you. Although in the Palace of the Koolloo Rajas (previously alluded to), which has stood for at least 150 years already, there is an admirable specimen of the architecture best suited to the country, and in which the native artizans are adepts, yet Mr. K. commenced the Tukseel building on the standard plan, prescribed for the plains of the Punjab—with burnt bricks (for which the gravelly soil is unsuitable) instead of stone—and flat roofs covered with beaten earth, instead of the gracefully sloped slated ones which throw off the snow.

In the evening I went on to Nugger, fifteen miles further up the valley, and some 1,500 feet above the river. At Nugger is a large house, built by the former Rajas of Koolloo as a summer residence, but repaired and adapted to European requirements by Major Hay, who was the first Assistant Commissioner when this province was acquired by the British, in 1846. This house stands at an elevation of about 4,500 feet—the temperature is tolerably cool, but the air extremely damp—and the climate at this season altogether relaxing. The plague of flies was horrible, and it was nearly impossible to take a meal without swallowing some, or at least some of their disgusting little legs, the result of which was a severe fit of vomiting. My dog Drake, a huge black retriever, was so troubled by them, that I had to put him on a spare bed, and let down the mosquito curtains, ere he could take his wonted siesta.

There is a very curious kind of cemetery here, consisting of upright stones, denoting the various male members of the Koolloo royal family who have died here. On each stone carved female figures represent the number of widows who became Suttees † by

* A Tukseel is the tract of country under a Tukseeldar, or native sub-collector; and the same term designates the building where the Tukseeldar holds his court.

† "Suttee" means, literally, a *virtuous woman*.

being burnt on their royal husband's funeral pile. Some of the stones have as many as forty or fifty figures!

The temples of Koolloo have a curious kind of wooden roof thrown over the stone structure, which I have never seen elsewhere. There is one at Nugger of some celebrity, of which a photograph is annexed.

The head-dress of the Koolloo women is very peculiar, and to my eye extremely pretty, the hair being plaited and twisted round the head, like a turban. Those who have not enough hair, supplement it with black worsted. The dress of the men consists of a pair of trowsers and a long coat or smock frock, confined round the waist with a woollen rope twisted many times round. The dress of the women of the upper classes is modest and becoming, that of the lower (Koonèth) verges upon indecency, the petticoat being so short and impliable, that when the wearer squats down, there is considerable difficulty in inducing the dress to follow.

The view of the Koolloo valley is very beautiful. All the lower lands are elaborately cultivated with rice, each plant being separately dibbled in, from seed beds. The lower slopes of the mountains are admirably adapted for tea, and two or three companies have started operations; but it is difficult to induce the people to part with even the waste lands. Higher up are beautiful forests of deodar, and of different kinds of pine, which latter are of little use as timber.

I was obliged to stay for some time at Nugger, much against my will, in order to dispose of some necessary business. I also had a meeting of the merchants who were in the habit of sending or taking up goods to Ladak and Yarkund, in order to try and induce them to come through Spiti. This they declined doing until the route had been opened up, but Wuzeer Goshown sent up a venture, the fate of which I had not learnt up to the time of my departure from Kangra.

I went out one day with J., Assistant Commissioner of Koolloo, and wounded a black bear, but failed to get him. The Koolloo men behaved in the most venturesome way. When the dogs could not be induced to enter a cave where a bear was supposed to be, they went in themselves, three in number, with only sticks for defence. We were on the other side of a ravine, and quite unaware of their proceedings. The bear really was there, and at last made a rush at them, and they with great difficulty succeeded in getting out unscathed.

29th. Made a start at last, and marched to Juggutsookh, about eight miles up the valley. Mr. Heyde, a Moravian missionary, whose usual station is at Kielang, in Lahoul, was staying here in a small bungalow, belonging then to Mr. Knox, but since purchased by General Conynghame. He agreed to accompany me on my trip, a very pleasant and desirable arrangement for me, as he is an excellent Thibetan scholar.

Mr. Elwes, civil engineer, was also here. He was then employed in constructing a wooden bridge over the Chundra river at Koksor, on the further side of the Rotang Pass, on the high road to Le, the capital of Ladak, and the only line at present open to Yarkund. Later in the season a most melancholy catastrophe occurred to the workmen who had been



5. DHURMSALA.—Upper View.



6. DHURMSALA CHURCH.

employed under Mr. Elwes. The works had been stopped for the season, owing to an unusually early fall of snow, which took place in October, and all the workmen employed were paid up and dismissed to their homes in Koolloo. They had to cross the Rotang Pass, 14,000 feet high, but no danger or difficulty was anticipated, as the weather had become beautifully fine and clear. But it appears that when they reached the summit of the pass, they were met by a gale of wind so fierce and so cold, that, exhausted with struggling against it, numbed with cold, and blinded by snow which was caught up and driven in their faces by the wind, no less than seventy-two persons perished. A few days after, when the pass was visited by our officials to recognize and bury the dead, the scene was most ghastly.

This Rotang Pass, which lies just above the source of the Beas river, has now an almost historic interest attached to it. It was to over-exertion in crossing this pass, and the rarification of the air at such a height, that Lord Elgin's fatal illness is to be attributed. It has been said that there was no sufficient cause for Lord Elgin, as Viceroy, encountering the difficulties of this pass, and that his life was sacrificed needlessly. But it is not surprising that Lord Elgin should take great interest in the improvement of a route which leads us at once into the heart of Central Asia. Nor can the subject be deemed unimportant; and his political connection with the Chinese Empire would doubtless enhance to him the interest which must attach to every scheme for improving our commercial intercourse with that jealous nation.

I had not time to return, as I had intended, by this route, but further on will be found a small photograph of a twig bridge in Spiti, similar to the one which His Excellency found it so trying to cross near Koksar. Hitherto this twig bridge has been the only means of crossing the Chundra river—all merchandise had to be unloaded and carried over on men's backs, ponies had to swim the river, and were frequently carried away and drowned, and even sheep, crossing the twig bridge without their loads, frequently fell through into the river and were lost.

June 30th. Marched to Chikkan, leaving my pony and proceeding on foot. After following the high road towards the Rotang Pass for about a mile, we branched off to the right (*i. e.* to the east), and about a mile further on passed through a village named Preenee. Directly after leaving Preenee you go up a long flight of steps, at the top of which is a grove containing some fine deodar trees, under which is a temple, and then continue a very stiff ascent (impracticable for ponies, unless lightly laden) for a mile and a quarter to Hamta village, which gives its name to the pass I was making for. We were now some 3000 feet above Juggutsookh, and the next three or four miles lay through beautiful (but useless) forests of pine, alternated with fine open grassy glades. From the time of leaving Hamta we were following up the valley of the Raine torrent, which at first was wide and open, but further on more contracted, dark, and shady; thickly wooded with pine trees (of the *tose* and *reh* species) interspersed with horse-chestnut, plane, elm, sycamore, lime, and birch, and occasionally yew. On the opposite side of the torrent towered magnificent limestone cliffs, on the ledges of which grew birch and kurreo—a beautiful species of evergreen oak (*quercus semicarpifolia*).

These cliffs towered to a height of at least 2000 feet from the torrent, and so steeply that you would think it easy to throw a stone from the summit to the other side. The entire distance from Juggutsookh to Chikkan was measured eight miles, six furlongs, and ten yards, but is now somewhat more, the steep ascent to Hamta having been overcome by a zigzag road laid out at an easy gradient. At Chikkan was a tolerably level piece of ground for encamping on, and some convenient caves among the rocks hard by, well known to the coolies who carried our loads, and wherein they made themselves very comfortable.

Our camp equipage and followers were Mr. Heyde's tent, a small shouldaree (tent roof and two gable ends), carried by one coolie, one servant named Meean, who was his factotum; and two or three kiltas,* filled chiefly with books, and a roll of bedding to spread on the floor, the whole carried by five coolies.

I travelled in somewhat more of state and splendour, with a Swiss-cottage tent, of which the chief room was ten feet by eight feet, a large shouldaree for the servants, and a small one for shooting excursions, a Mahommedan servant, who cooked and waited at table, a water carrier or "bheestee," a dog keeper, a Mahommedan named Imam Khan, who had lived many years in Ladak in the service of the Maharaja of Cashmeer, who understood the Thibetan language, and was to accompany me out shooting, a dhobee or washerman, and two hill men of the Guddee tribe from Dhurmsala—one of whom, Chumaroo, cleaned my guns, and acted as photographic assistant, and the other, Lenoo, as tent-pitcher and valet-de-chambre. Then I had two tables and chairs, a photographic apparatus and dark tent, gun and rifle, powder, shot, &c. &c., and altogether my private equipage required thirty-six men to carry it.

Besides this I brought a moonshee, who had a small tent, and two servants and a quantity of small articles (chiefly of British manufacture) for interchange of presents, which formed four men's loads, a serjeant of police and four constables (who likewise had a tent), and an agent of Wuzeer Goshown with some merchandise, so that altogether we required some seventy coolies.

No one travelling among the upper hills of Koolloo can fail to be struck with the vast extent of rich land lying waste. The people pay nothing for this, and cannot really make use of half of it, and yet they are most unwilling to sell any of it to European settlers.

The system of sheep grazing in the hills is the most extravagant that can be conceived. In the cold weather the sheep are driven down to the plains or to the lower valleys of the hill districts. In March, as the weather begins to get warm down below, they are brought up to the lower hills, about 3000 to 5000 feet above the level of the sea. There they wander about and pasture for two or three months, going higher and higher as the heat increases, till at last, just before the rains, they cross the outer Himalayan range, which averages about 15,000 feet in height, to the comparatively rainless regions beyond, and on the rains ceasing they retrace their steps to the plains.

The grassy mountains on which the sheep pasture in the warm months, and which are

* Deep baskets covered with leather.



7. TEMPLE AT NUGGER.



8. KOOLLOO MAN AND WIFE.

the lands best suited to British settlers, are held on a very peculiar tenure—a tenure too created entirely during the seventeen years we have held this part of India, and utterly without parallel under Native rule—viz., that during the term of the existing lease, or “settlement,” as it is called in India, the Zemindars have an absolute and transferable proprietary right, subject only to the payment of grazing dues at fixed rates to the state, in Kangra proper, whilst in Koolloo, no such dues even are levied. At the same time (and here is the paradox) Government is entitled on the expiry of the present settlement in 1878 to determine what portion of waste land is necessary to any particular village or township, and to take into its own hands, or settle with another party, any excess of waste land, so that in reality the Zemindars are not, or should not be, entitled to alienate such lands at all during their lease.

Forest lands exhibit another peculiarity of tenure, the lands being held by the Zemindars on the same terms as above, whilst the timber belongs to Government, and can only be cut or sold with the sanction, and for the benefit of the State.

These peculiar, and it must be allowed, absurd tenures are a great stumbling-block to Europeans wishing to purchase lands, who generally consider the assertion, “Never heard of such a thing before in all my life,” quite sufficient to demolish the fact of such tenures existing.

To comprehend fully the difficulty of dealing with the native Zemindars for the purchase of such lands, the peculiar social features prevailing in these hills must be borne in mind. Each township is held in proprietary right by a large community, among whom the cultivated land is minutely subdivided, whilst the waste and forest land is held in common. Some of them devote themselves chiefly to agriculture, hold a large portion of cultivated land, pay a large share of the Government revenue, and are entered in the proprietary register as possessing a proportionately large interest in the common property. Others again, chiefly the Guddee tribe, prefer the pastoral life, have the smallest possible patch of cultivated land, to provide grain for their own consumption, and pay merely a shilling or two of land revenue to Government, passing their lives in taking their flocks from place to place. Some of these shepherds possess great numbers of sheep, and are wealthy men. No one objects to their monopolizing the use of the common waste lands, because no one else wants to use them; but if the waste lands were sold, their share of the price would be almost nominal, corresponding to the share of Government revenue they pay. So they have obviously no inducement to alienate these lands, and they do in fact invariably oppose their sale.

July 1st. It had rained rather heavily the previous night, and the tents being wet we halted. The outer piece of my Swiss-cottage tent being large and heavy, even when dry, was quite beyond the powers of any coolie when wet; and as these men only carry a load on their backs, they cannot sling a heavy load on a pole carried on two men's shoulders. In other parts of India coolies carry loads on their heads, but whatever plan they are accustomed to they most pertinaciously adhere to, and will not carry half a load in any other way.

From Chikkan we could see whereabouts the Hamta Pass was. Some of the peaks

right and left of it are most fantastically shaped. One an obelisk of very considerable height, another a vast Hindoo temple.

July 2nd. Marched up the Hamta Pass. Halted to breakfast near the top, and got a picture of the top of the range, showing the mass of snow and ice which filled the upper part of the ravine we were ascending, and fed the stream which ran past Chikkan, the Raine. Heavy clouds kept passing over and obscuring the peaks in a manner very trying to a photographer's patience. The distance from our halting place at Chikkan to the top of the pass is six miles, two furlongs, 110 yards. It was nowhere very steep, and as a good deal of snow was still lying among the rocks, our track was easy enough. On returning in September, the rains had washed away all the snow, but in the meanwhile I had had a good path made along the side of the ravine. We were unfortunate in the weather, for as we reached the top of the pass, the thick mist closed round us and shut out the view. On my return, too, my luck was little better. Occasional glimpses through the mist showed me that there was a splendid glacier among the higher mountains to the east of the pass, but I could not get a picture.

We now descended to the banks of the Chundra* river. The halting place, which is uninhabited, is called Chaitro, ten miles, four furlongs, 121 yards from Chikkan. Across the river is the village of old Koksor. We were here about five miles only above the bridge Mr. Elwes was constructing, but as I intended to visit it on my way back, I did not do so now. The Chundra river here is about 200 feet across, deep and rapid, and studded with huge granite boulders. Every two or three miles it is fed by small torrents rushing down from glaciers among the lofty mountains on both sides. There is not a spot of level ground in the Chundra valley. The mountains rise steeply from the river's edge.

The Chundra valley, geographically speaking, belongs to the province of Lahoul, but practically it is shared between Spiti and Koolloo,—the shepherds of Koolloo graze their flocks in it, and the people of Spiti and Koolloo alternately furnish coolies for travellers. With the exception of the village of Koksor, on the right bank, there are no houses in the valley; and from the twig bridge at Koksor to the source of the river near the Baralacha Pass, some forty or fifty miles, there are no means of crossing.

July 3rd. Marched eight miles, seven furlongs, eleven yards, to Footeh Rooneh. The road lay up the valley, and for the first few miles was very unpleasant walking, and most difficult for ponies, as the sides of the valley are covered with boulders and rocks of gneiss and granite, brought down by the avalanches in April and May, piled upon one another against the steep hill side, and giving way to the pressure of a footstep.

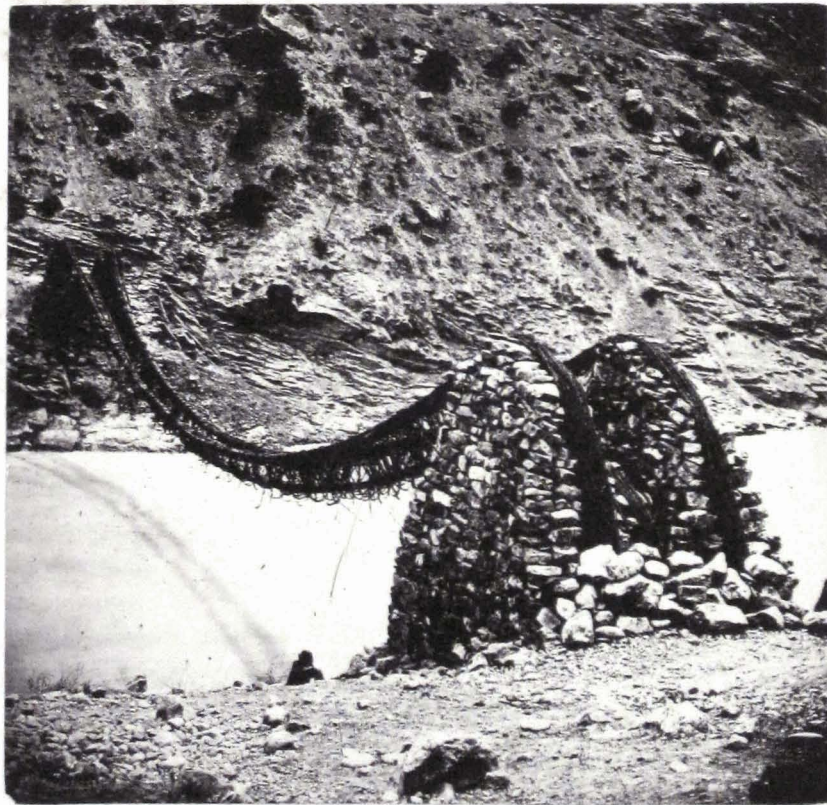
This portion of the road will need re-making annually, but will not be very expensive.

This halting place takes its name from a huge mass of rock (Rooneh) which has split or rent from top to bottom (Footeh). At this place there is no fuel procurable, it must be carried from the last halting place.

* The Chundra, after joining (some thirty miles below) with the Bhâga, assumes the name of Chundra-bhâga, or Chenâb, one of the five great rivers of the Punjab.



9. RAFT OF INFLATED SKINS.



10. TWIG SUSPENSION BRIDGE.



11. A GUDDEE FAMILY.

July 4th. Marched to Kurtch or Garse, ten miles, five furlongs, thirteen yards; the former being the name used by the Koolloo people, and the latter by the Spiti folks. About half a mile from Footeh Rooneh we crossed a rapid torrent which came down from the Chota Shigri valley. There is a very great difference in all these hill streams at different hours of the day. With those whose source is in the snow close by, the morning represents low tide, and the evening high tide—the heat of the day melting the snows, and the cold of night freezing them up again. Beyond this torrent the path lay across the Chota* Shigri, a vast moraine left by some former glacier which, from some cause or another, (perhaps the increase of temperature asserted by some Himalayan travellers), has melted away, or, as it were, retreated up the valley, whence it still sends forth the torrent just crossed. Up this glen, which is topped by some beautiful snow-clad peaks, is found antimony, but of a very inferior sort.

Beyond the Chota Shigri is a comparatively open piece of ground, from which we ascend slightly on to what appears another moraine, like the Chota Shigri, but of much greater extent, being from its source to the Chundra river about four miles long, and in breadth some two miles.

This is, in fact, the Shigri, or Great Glacier, as you soon find out from walking on it. Stones and gravel that seem quite firm exhibit, when trodden on, a wonderful tendency to slide away. Huge boulders, or rent fragments of rock, which look as if a second deluge only could move them, give way under the lightest footstep, and glide away from you, displacing the adjacent stones, and testing your activity to escape a broken leg. Little streamlets are everywhere trickling from the surface, exciting your wonder how there should be water on the top of this mass of apparently porous rubbish, till suddenly opens before you a rent in the mass, the walls of which are clear green ice, and you see that you are travelling over an enormous glacier, coated with dirt and gravel, and sprinkled over with huge rocks and boulders.

It is known that twenty-seven years ago this glacier first burst from the mountains above, and rushing down with resistless force, as if to attack the opposite mountains, formed a huge dam, extending right across the river Chundra, which was pent up for many months. At length the heaped up waters found a vent, carrying away the barrier which opposed them.

Tracing the glacier towards its source, you find that far up the valley two frozen torrents meet, and their struggles for supremacy doubtless created the vast waves of ice which fill the valley, and form the glacier. Reaching the more open valley the glacier spreads out on both sides, still rising and falling in vast frozen waves. On the crest of some of these you see huge blocks of stone raised far above the mass on their pedestals of ice, the pedestals of course being merely a portion of ice preserved from melting by the shade of the superincumbent rock.

* Chota means small or lesser.

If you follow the glacier down to the river (at no slight risk of breaking your neck), you see a large rapid torrent issuing from underneath the glacier itself to join the Chundra river, and eating away the glacier till it forms a promontory jutting out between the torrent and the river, with a perpendicular wall some 150 feet high. Large slices of this wall are constantly yielding to the action of the torrent, first splitting off from the main mass and leaving vast crevasses, and eventually falling in with a crash, and strewing the river for miles down with blocks of transparent ice. This process proceeds with considerable rapidity, yet on my return, two months afterwards, I found the glacier abutted on the river, just where it did before, proving that the whole glacier constantly moves downwards.

But besides this general movement of the mass, there is a perpetual motion caused by the daily melting of the whole surface, whereby the most ponderous rocks may at any moment become detached; and as the whole glacier is a succession of huge waves, no level spot being anywhere found, these rocks, as soon as the grip of the ice is loosened, slide irresistibly into the trough of the wave.

It seems impossible to do much to improve the road over this treacherous element. You cannot turn its flank, for below is the river and above is a chaos of crevasses.

It would be possible, perhaps, to carry the road on the other side of the river, having a bridge above, and another below, the glacier; but the road certainly—and probably the bridges—would be carried away yearly by avalanches. The only feasible plan at present is to pay the Lahoul or Spiti people a sum of money (say rs. 200) yearly to repair, every spring, and keep in some sort of order, a precarious path across the frozen sea of Shigri. After crossing the glacier you have to ford a mountain torrent, which, however, just before reaching the river, divides itself into several beds, and is easily fordable. For the rest of the way the path lies up the river bed. From the Shigri, for four miles up the river, you see unmistakable signs of the river having been dammed up by the glacier. Throughout this distance the bed widens out to from 1500 to 2500 feet. The bottom is quite flat, and is covered with a deep deposit of sand and gravel; and, strange to say, for these four miles there is not a rock or boulder to be seen, though below the glacier the river is full of them. The natives say that the river was pent up for eleven months, but if the height of the icy barrier be assumed as 200 feet, the average breadth of the river at 2250, and the length of the lake four miles, we have 4,752,005,000 feet as the cubic contents of the lake. Now I should estimate the discharge of the river in the beginning of July at 600 feet per second, and assuming half of that as the average in the other months, it would only take six months, two days, and sixteen hours to fill the basin. However, for all we know, the glacier may have filled up the river to a height of 400 instead of 200 feet. What a glorious rush there must have been when the dam burst!*

I believe no large river in these regions has been seriously invaded by a glacier for the last twenty-five years, and according to the Schlagentweit Brothers, snow is decreasing, and

* Cunningham, who enters into considerable detail regarding the cataclysms of the other Punjab rivers, is silent regarding the Chundra or Chenâb. He appears never to have travelled this route.



12. THE HAMTA PASS.

Hamta Pass



Chota Shigri

13. CHOTA SHIGRI.

the occurrence of such an event becomes yearly less probable. All the other glaciers in this valley cease abruptly at 1500 or 2000 feet above the river.

July 5th. Halted, dismissing the coolies who came with us from Juggutsookh.

July 6th. The full complement of coolies did not arrive till late in the day, so we halted again, merely sending our tents across a rapid stream which here joins the Chundra. It is necessary to be very careful in fording these streams, as the footing once lost is rarely recovered, owing to the rapidity and intense coldness.

A kind of stunted juniper is procurable for firewood a few miles off, and in many places are regular peat bogs, which if cut and dried would make capital fuel.

The Nono (or chief man) of Spiti, with one of his sons and several attendants, had met me at Footeh Rooneh, and now, all the coolies having arrived, I felt that I was at length getting towards Spiti. The coolies brought with them several tame yâks (*bos grunniens*), known by the natives of India as the Chowr-gao, as its tail is the celebrated chowree, or fly-flapper used by the higher classes of India.

I think the first impression caused by a sight of the Spiti people, from the Nono downwards, was, "What a filthy lot." This was not diminished by the "ghoul"-like way in which they disposed of the carcasses of two ibex which had been carried down into the valley by an avalanche, and had reached an advanced stage of decomposition, all the hair having fallen off. Fuel being scarce, they hardly waited to warm the meat through, ere devouring it. Even my Guddee servants, who would not object to a diseased sheep, loudly expressed their disgust. The next was a feeling of bewilderment as to their sex. I was feeling quite ashamed of letting my guide to-day, a girl as I thought, wade the river, and was just going to offer her a lift on my pony, when she got upon a yâk—and it was a boy after all. I shall describe their costume hereafter.

July 7th. Marched to Losur in Spiti, eleven miles, seven furlongs, twenty-two yards, crossing the Koolzum Pass, about 14,800 feet high. The distance to the top of the pass is three miles, four furlongs, eleven yards, and from the top to Losur eight miles, three furlongs, eleven yards. The ascent and descent are both very easy, and there is not a vestige of snow anywhere near the summit, which is level and boggy, the drainage from the overhanging mountains flowing down on to the pass and then separating, some for the Chundra and some for the Spiti valley. In fact the appearance of the pass suggests the idea of its having been, at some period, the outlet of a lake. It is observable that no granite is found at the top of the Koolzum Pass, nor in all the Spiti valley.

Losur, at the head of the valley, is a village containing some twenty-five houses. The Spiti river first becomes important here. It occupies a large circular or oval basin, into which flow three or four considerable torrents.

We at once found a delightful change in the climate on crossing the Koolzum Pass. All along the Chundra valley there had been a good deal of rain and heavy clouds, and the air was damp and heavy. In Spiti the weather continued cloudy and drizzly, but the clouds were less constant and higher, whilst the air was delightfully pure, and comparatively dry.

At Losur are some charming bits of level sward, where a most delightful residence, during the rainy months, might be effected. The snow lies all the year round close above Losur, which is nearly 14,000 feet above the sea.

July 9th. Marched to Khiotto, ten miles, five furlongs, 192 yards. We had to go a little way up stream to reach a practicable ford in the Spiti river, which was to be crossed; and here a lamentable instance of the danger of these hill streams occurred. Many of our loads were carried by women, and the water being mid-thigh to the men, none but a few of the strongest made the passage singly; and generally some five or six held hands. However, two of the women, having very light loads, attempted to cross without waiting for the men to return and convoy them. The river is here divided into two branches, the one on the Losur side being the main one. Mr. Heyde and I, riding on ponies, had crossed both this and the further branch, and I had dismounted and was walking slowly along, when Mr. Heyde called out, "See, there are two women carried away." Turning round, I could just distinguish two dark objects being rapidly borne down the middle of the main stream. I was now some way below the ford, and immediately started off in a straight line towards the nearest part of the main stream, crossing the branch which now intercepted me, in a succession of bounds, as I have seen the hill men near Simla do, when a stream is too rapid to wade through. I could just hear Mr. Heyde (who knew the danger better than I did) calling out, "No, no, no!" Darting across a bed of gravel which lay between, I reached the main stream just as the first body was rapidly swept past, and the second appeared twenty or thirty yards above me. Both were rolling over and over in the current, almost entirely under water, and not struggling or exhibiting any signs of life. I saw there was no hope of reaching the first, so dashed into the stream to try and catch the second. I don't think I stopped to consider whether I was going to wade or swim, but the question was speedily decided for me, for in a moment I was taken of my legs, and came down head foremost in the torrent, the icy coldness taking away what little breath I had left from running, the waves dashing into my face, and the current sweeping me rapidly down, the water being evidently deep, for I could feel no bottom. For a moment I seemed to give myself up as lost, but only for a moment, and then began striking out lustily, though I must confess with no very definite object beyond keeping myself from drowning; but just then the body of the woman was swept within my reach, and my original object came back to me in full force.

I well remember the moment of intense anxiety lest my attempt to get hold of her should fail. However, it didn't. I got a good grip of her clothes, and after a short but terrific struggle, and more dead than alive, got into shallow water and felt the bottom. Still, even here, the current was rapid, and I was so benumbed and exhausted, that had not one of my policemen (Mahtâba, a Rajpoot of the Goleir tribe), who had followed down the bank, arrived and got hold of me, I scarcely think I could have got on my feet.

The body I had brought to the shore was that of an old woman, apparently lifeless, but we carried her to the tent of some pedlars from Ladak, which was luckily at hand, made up



14. SHIGRI GLACIER.—Upper View.



15. ROCK ON A PEDESTAL OF ICE.

a good fire, put dry clothes on her, applied heated stones to her hands and feet, rubbed her well, poured some spirits down her throat, and she came to and soon recovered entirely.

The other poor creature was not got out till she had been carried half a mile further down stream. She was quite dead, having received indeed a contusion on the temple that would probably have been fatal of itself.

I consoled this poor woman's husband with a pension—not large enough to be a premium for similar accidents in future—and ordered the erection of a twig bridge as a thank-offering for my own merciful escape. On our return we crossed the river on this simple suspension bridge, and found it a great convenience,—it only cost rs. 25 = £2 10s.

I may as well conclude this little episode at once. On my return up the Spiti valley, I stopped at Khiotto to breakfast, and had hardly sat down, when the old woman, whose life I had saved, came running, evidently in great emotion, and throwing herself down before me, offered me a vessel of milk she had brought with her, and then began to pour forth earnest words, with a profusion of tears. I was much pleased with the earnestness, and called some one to translate what I expected to be a simple but heartfelt expression of her gratitude. Imagine my surprise and disappointment on finding that her eloquence was intended, not to express gratitude at all, but to persuade me that she had lost a valuable “pèràk” or head ornament in the river, and *that I ought to pay for it!* On my declining to do so, the old lady bounced off in a huff, *and took the milk back with her!*

The rest of the road to Khiotto, with the exception of one deep ravine, was level and easy for ponies.

July 10th. Marched to Khiebar, distance eleven miles, three furlongs, twenty-seven yards. About four miles from Khiotto we came upon the Talang river, running from the pass of that name (which leads from Spiti into Ladak) and falling into the Spiti river. It has cut for itself a deep ravine, which we had to get down and up. The river itself is passed upon a natural bridge, formed by a mass of clay-slate falling across it. The bed of the Spiti river is here about 200 yards wide, and is cut out through a mass of lime conglomerate. At the top of the banks, which are 200 or 300 feet high, the melting and slipping snow cuts this soft material into fantastic shapes, often leaving cones or obelisks twenty or thirty feet high, and generally with a flat slate on top (to whose protection they probably owe their existence), looking like the bench-marks left by workmen when excavating a canal, to show the depth they have cut. Getting out of this ravine, the road left the course of the Spiti river, which here bends away to the S.E., and ascended along the side of a steep hill of fine shale, which constantly slipped away beneath the ponies' feet, and after crossing another ravine, came into an oval basin about a mile long, enclosed among low hills—evidently the bed of an old lake, through which probably the Spiti river once flowed, at an elevation of 1000 feet or so above its present channel. From this place I took the annexed photograph of the Upper Spiti valley. Parts of this basin are quite boggy, but it is only used for grazing, as the people say corn would not grow unless irrigated!

After a gentle descent for about three miles we came to a very deep and narrow ravine at the bottom of which flows a stream, called Parângto, which has its source in the Parang La,* the most frequented pass between Spiti and Ladak. The path through this ravine, both down and up, is very steep and difficult. The stream is not large, and is crossed on a wooden bridge. The rocks through which this torrent has cut its deep and winding course are limestone. The annexed photograph will give an idea of the place. After getting out of the ravine, about two miles brought us to Khiebar, one of the four chief villages of Spiti, the other three being Dhunkur, Mânee, and Rareng.

In Khiebar there are twenty houses belonging to landowners, and thirty or forty more inhabited by their dependants and artizans. Across a little ravine, fronting the village, are two piles of stones cemented together with mud, dedicated to the five elements, and (somewhat indistinctly) shown in the foreground of the accompanying photograph. A pile of this sort is called a "Chorten." At Khiebar are some water mills for grinding corn, constructed on the same principle as in Kangra—viz., a stationary nether stone, through which passes a spindle attached at the lower extremity to a horizontal wheel with large fans, and at top to the upper millstone, to which direct motion is communicated by the action of the water on the horizontal wheel below.

Hitherto we had seen no crops but peas and barley, which at this time (July 10th) were only a few inches above ground.

It may be as well here to give a brief description of the province of Spiti. A reference to the map will show that the Spiti river rises near the Baralacha Pass, and, running east for about seventy miles, is joined by the Para river (which rises on the north side of the Parang Pass), and then turns abruptly to the south and flows towards the Sutlej.

The province of Spiti comprises the valley of the Spiti river and its tributaries, down to its junction with the Para river, when it turns abruptly to the south and enters the Koonawur territory. On the north it is bounded by the third great Himalayan range, in which the Chundra or Chenâb river rises, being separated from the valley of the latter by a kind of spur which connects the third with the second Himalayan range; and this spur, which we crossed at the Koolzoom Pass, forms the boundary west. On the south it is bounded by the second Himalayan range, in which rises the river Beas, and which is traversed by the Rotang and Hamta Passes, and lower down (*i.e.*, eastwards) by the Bhaba Pass. To the east Koonawur and Thibet form the boundaries. These great ranges to the north and south of the Spiti valley rise to a height of 20,000 feet, and throw out great spurs which terminate abruptly above the valley at heights from 16,000 to 18,000 feet. Between these ranges is a space varying perhaps from twenty to thirty miles, which comprises Spiti. Whether this space was originally a deep valley which has been tilted up by *débris* from the upper mountains, leaving deep water courses; or whether it was originally a high table land, which, as the snows above melted, became in time a vast lake, and which at length bursting its

* "La" means a pass in the Thibetan language.



16. SHIGRI GLACIER.—*Lower View.*



Shigri Glacier

17. SHIGRI GLACIER.—From the River.

bounds, made itself an outlet, first across the Koolzum Pass and afterwards through the hills to the east, cutting out for itself the deep watercourses of the Spiti and its tributaries, is for geologists to decide.

I incline to the theory of a great lake, as will be shown hereafter.

The formation is entirely limestone and clayslate (generally in horizontal strata), both of a very dark colour, and with veins of quartz intersecting them. In one place I found a hard sandstone about 100 feet above the level of the Spiti river. There is no granite to be seen in all Spiti, not even a boulder. There is ample opportunity for studying the geological formation, as the deep perpendicular ravines cut by torrents which flow into the Spiti present sections which by one who knew their language might be read like a book.

The chief tributaries of the Spiti are the Lingti and Peen rivers, which unite with it nearly opposite one another. The valleys of both these rivers are of a similar formation (on a small scale). As a rule, only these three valleys are inhabited and cultivated, but there are three villages and a monastery on the uplands beyond Khiebar.

Spiti is divided fiscally into five "*Kothees**" or subdivisions, each presided over by a "*Gyatpo*" or elder, who collects revenue and settles minor disputes, and tells off coolies when required for travellers or for repairs to roads, &c.

Hitherto these Gyatpos have been appointed and dismissed by the Nono at his own pleasure, but I have prohibited this for the future; the office is to be held during good conduct, and an order from the Assistant Commissioner of Koolloo will be necessary for dismissal.

Each Kothee comprises several villages, and in each village is a "lumberdar," a kind of unpaid parish beadle, who holds office for a year. The lumberdars are exempt from carrying loads or repairing roads; they communicate with the Gyatpos, and carry out their orders.

The Nono hitherto decides all cases and disputes of every description. His proceedings are entirely verbal, no record of any sort is kept. He supports his dignity by collecting a grain tax, which was formerly collected by the native rulers, but which the British Government, when assessing a fixed money revenue, discontinued.

He is not entitled legally to do so, and the tax will probably be discontinued, and a money allowance be made him instead.

The Spiti people are all Buddhists. The law of primogeniture is upheld with regard to inheritance in the strictest manner. All younger sons are obliged to become monks, and are not allowed to marry. They are called "Lamba." They undergo a novitiate, and do not become spiritual teachers till they obtain a degree at Lhasa, and may pass their whole lives without being ordained. During the summer months the lambas assist their fathers or elder brothers in their fields, and in carrying loads, whilst in winter they all congregate in the monasteries, of which there are five in Spiti, viz., Kee, Tanygoot, Dhunkur, Peen, and Tâbo.

* Viz., Choojee, Totpa, Purshee, Shampa, and Peen.

The most striking feature in the Upper Spiti Valley is the total absence of trees. Here and there are a few small willows, but these are in the river bed, or in some sequestered glen; and do not relieve the desolate aspect of the landscape.

The houses in Spiti are comfortably built, and strangely enough, though stone and slate abound as they do, they are built of sun-dried bricks, and have flat roofs made of earth laid on rafters and twigs. The usual form of building is an oblong square; the lower storey is used for cattle pens, and the upper storey is built on three sides only, with parapet walls on the fourth side, so that the centre forms a kind of open court. The picture of Khiebar (Plate XXVIII), gives a general idea of the form of the houses. I shall give further details of the habits, dress, &c. of the people by-and-bye.

July 11th. Halted.

July 12th. Sunday. Ditto.

July 13th. Mr. Heyde wished to pay a visit to the monks of Kee monastery, about four miles down the valley. We agreed accordingly that I should spend a day or two in the uplands in search of game, and overtake him afterwards. Taking a small tent and two days' food, I went up the hills on a pony. After wandering about all day we sighted a herd of wild sheep, here called *nâbo*, about three in the afternoon. I stalked them to within 125 yards. There were about twenty-five in the herd. I aimed at the leader, but making too much allowance for my rifle, which carries a little high, I shot too low, and missed both barrels. We were here at a height of 14,000 to 16,000 feet, and respiration was rather difficult when going up hill. There were a great number of "Goolind," or snow pheasants, in these uplands; but as they were breeding I did not try to shoot any. We caught a brood of young ones, which I hoped to rear; but though I carefully covered them with a blanket at night, they all died of cold before morning.

The ground traversed to-day has a most singular appearance. The hills are gently rounded—sometimes even flat at the top—covered with dark shale, so dark at times that one fancied oneself near the mouth of a coal-pit. On the tops of these hills, which are not commanded by any higher ones except the snowy range in the back ground, from which latter they are several miles distant, are great quantities of fossils, chiefly ammonites and belemnites. I cannot help inferring from this that the present uplands were the bottom of a primeval lake, and that the deep ravines which now intersect them, have been cut out subsequently. At the top of one of these rounded hills my pony stuck in a regular black bog!

July 14th. Sallied forth at five a.m.—bitterly cold—and before long sighted a herd of some fifteen *nâbo*. They were grazing on a slope which on one side stretched gently away for a considerable distance, without the slightest cover, and on the other terminated abruptly on one of the stupendous ravines already spoken of. This latter side afforded the only chance of stalking them, and we tried it accordingly, creeping along the narrow ledges of treacherous limestone, which, corroded by the elements, crumbled away beneath the foot, the rock above jutting out so that we could scarcely get round without being pushed off our balance, and an abyss below which it was better not to look at. At last, when I judged



18. UPPER SPITI VALLEY.



19. BED OF THE PARĀNGTO TORRENT.

I was opposite the herd, I crept up to the level of the sward, and cautiously peered through the stunted gorse. There were the nâbo feeding in perfect security, nearly as big as mules. I crawled along the ground some thirty yards to get a safe shot, and then, observing the lord of the herd looking suspiciously in my direction, I took a steady shot at his breast, and the soft *thud* told me he was hit, though he bounded off with the rest. Certainly the excitement of trying to bag a new kind of game, which you may never see again, is very great, and, when crowned with success, a delicious sensation. However, my day's sport was not all roses. The herd broke into two sections, and I followed the wrong one for a great way down a steep ravine and then up on the other side. When almost beat, I was recalled by one of the Spiti men who accompanied me, and who had followed the trail of the other section, and had marked down my wounded one. Straining every nerve I retraced my steps with all speed, and when near the place, to my astonishment, heard a shot fired, and struggling forward found that Imam Khan, who carried a spare gun, had given the nâbo his quietus, instead of waiting for me!

That I did not lay violent hands on this fellow and thrash him soundly, will probably be looked on by sportsmen as an exertion of self control nearly superhuman! I consoled myself with the reflection that as my bullet (so we found on examination) had entered the chest, come out behind the shoulder, and broken the thigh on the same side, there was not much skill required to finish the poor brute. The nâbo is the same, or nearly the same, as the "Burrall" of the Eastern Himalaya. His back is a grey slaty colour, running into white underneath; his legs are long, and he stands very high, having much more the appearance of a light coloured donkey or mule than a sheep.

I had been instructed by Mr. McLeod, Financial Commissioner of the Punjab, to procure, if possible, specimens of the "pushm," or shawl wool of the wild animals in these regions, so I collected that of my nâbo to commence with. The pushm, soft and warm, lies close to the skin, and is of one uniform dirty brownish grey colour. I could only get it off by plucking it out with the upper coat, which was coarse, soft hair, about two and a-half inches long, and very brittle, breaking into short pieces, and mixing with the wool, so that their separation was extremely difficult. I subsequently procured the pushm of an Ibex, which was also forwarded to the Lahore exhibition.

On returning to camp, heard that two buck ovis ammon (the monarch of the sheep tribe), here called nyam, had been seen, and determined to devote the 15th to their pursuit.

July 15th. Started at six a.m., and sighted the game about noon. They were in an unapproachable place, however, and there was nothing for it but to wait till they changed their locality. I watched them through my glass till they lay down, and then lay down myself to wait till evening, when they would graze again. I fell asleep, and was roused by one of the Spiti men saying that some wood gatherers were coming past a little above the game, and would probably frighten them away.

I turned my glass to where I had left them, but in vain—they were nowhere to be seen. The high ground where they had been, sloped gradually into a long hollow, and down this

it was evident the nyams had gone. I decided to cut straight down to the lower end of this, about a mile from where they had been, to a place where the hollow separated into two branches, on each side of a steep rock (and which I had passed on the 13th), at the same time sending a man to the head of the hollow to look for them. I had nearly gained my proposed station when I was vehemently telegraphed back, and back I rushed, gasping out in a hoarse whisper, "Where are they?" The stupid fellow did not know, but he had seen them going down the hollow, in expectation of which I was posting myself, when re-called. I started off again to the bottom, but alas! they had got there before me, caught a glimpse of me coming down, and started off at a most tremendous pace, down ravines and up slopes, and going clean away out of sight. That fatal return lost me a safe shot. Splendid fellows they were, and the indignant suspicion of their gestures, when they thought they saw me, was superb.

The *ovis ammon* can scarcely be considered a denizen of Spiti. These had probably come across the Parang Pass to breathe a drier and cooler air during the summer months.

On my return to Khiebar, was met by the Nono of "*Peen*" valley, or Chota* Nono, as he is called. As an agreeable variety he wore a *clean* looking dress of white "puttoo." Puttoo is a thick woollen blanket woven in these hills.

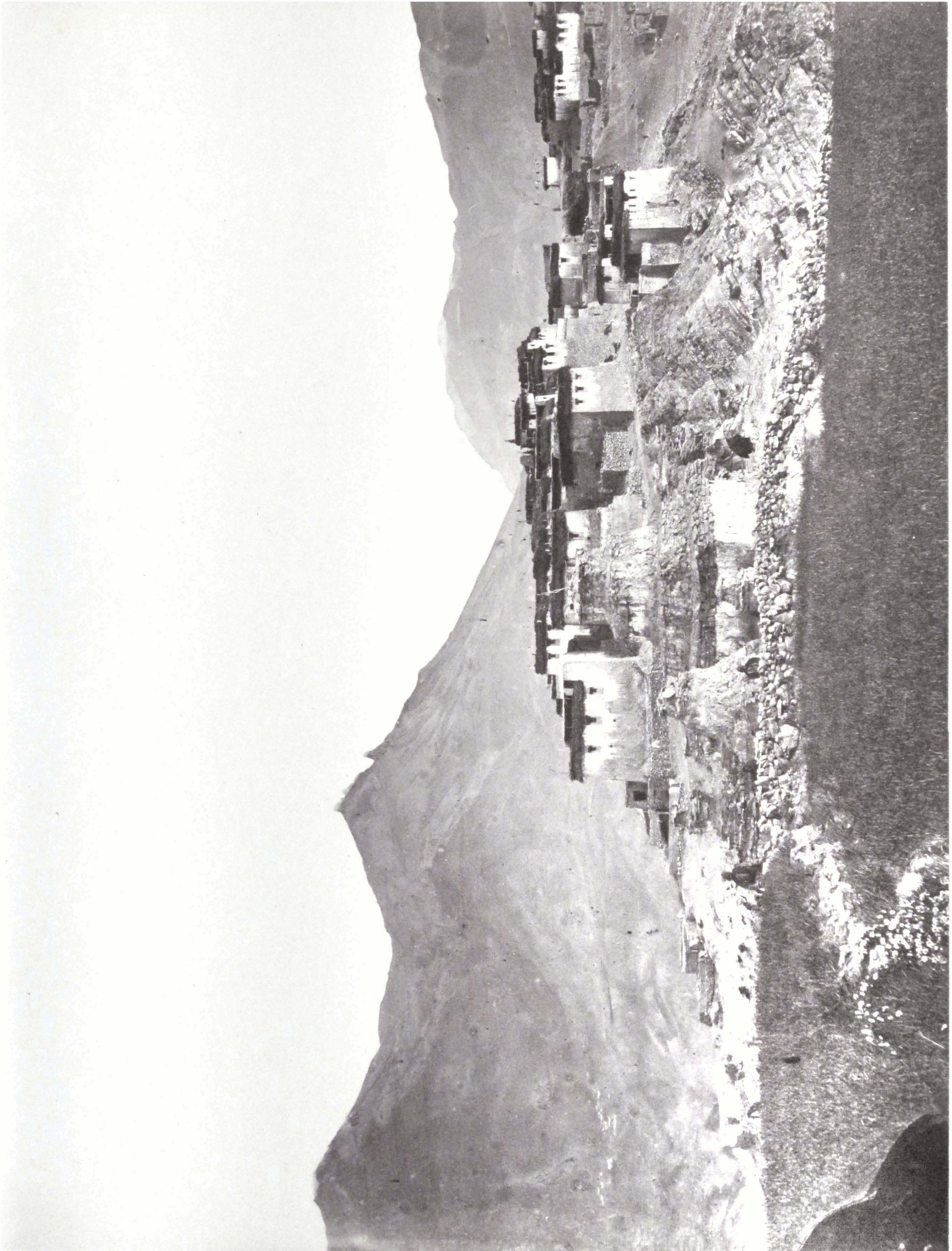
I went this evening to look at the house of a well-to-do Spiti zemindar. All the houses in this part of Spiti are built on the plan already mentioned. The upper storey consists of three large apartments, all opening on the court-yard or balcony. The outer room is the one usually occupied by the family, and here were the handmill, the water pail, pestle and mortar, teapot, and other domestic utensils, and the store of parched barley. The room on the left of this is the dining-room, and is hung round with the best clothes of the family, including sundry cloaks of white sheepskin. The apartment on the right is the chapel, or oratory. In this are the images of Lhooâng and Losodong, the popular god and goddess, which unlike the Hindoo goddess Doorgah, are both *beneficent* deities. In front of the images is a row of some half-dozen little brass basons, full of water, ranged on a shelf at their feet; and a short way off several lamps—small brass vessels filled with melted butter, with a bit of cotton wick; and by the side of the images were some goodly lumps of butter for replenishing them.

All the rooms were large and tolerably lofty, and they were aired and lighted by a small window which can be closed by a wooden shutter.

In evidence of the high state of civilization to which the Spiti people have arrived, I must mention that they have in their houses, and on the upper storey, that acme of domestic convenience, a water-closet—all but the water! I presented the lady of the house with a comb and looking-glass, showing her how to use them, to her great delight and the admiration of the surrounding crowd.

There are no rain crops in Spiti, every inch of ground cultivated is irrigated; indeed

* Chota means little.



20. KHIEBAR.

without it nothing would grow. The larger streams are seldom, if ever, available, as their beds are too deep, and the supply of water from smaller streams is not always abundant. At Khiebar, and in some other places, the people have recourse to a system of reservoirs, evincing ingenuity and painstaking. Near the source of every stream I have seen in these parts, is the bed of what was once a lake, the banks of which are generally perfect on three sides, but cut through on the fourth, where the water made its escape. This outlet is dammed up, and in the dam is left a sluice with a wooden gate. This is closed in the evening, and the water accumulates till morning, when the sluice gate is opened, and the water rushes down to the valley and is conducted to the fields in the most careful and economical way—women with a wooden hoe smoothing the way for the driblets of water, and turning them into every furrow.

This evening a European traveller arrived and halted here. He called himself Le Comte Louis de Thurheim, Major in the Austrian army, and I invited him to dinner. He had travelled in China and Japan, and was now on his way to Ladak and Cashmeer. He looked extremely dirty, and was travelling in what, to most people, would be great discomfort. He had left his tent behind, voluntarily, it appeared, and put up for the night in a little native enclosure.

July 16th. Marched to Kazé, distance eight miles, five furlongs, eleven yards. About four miles from Khiebar was the monastery or Gonpa of Kee, the largest in Spiti. It is built on a small isolated hill, and is extremely peculiar and picturesque in appearance. It is said to be seven hundred years old, but no one here could tell the name of the founder. The monastery consists of some large public apartments and chapels on the summit of the hill, and a great number of separate residences or cells for the monks studded over the side below. The building is of stone and mud, occasionally a mass of rock *in situ* is worked into a wall. Mr. Heyde met me, and after breakfast we went over the monastery together. At this season there were not more than twenty resident monks, mostly old men, and only two or three could read; but in the winter the cells are all occupied—some eighty in number. We were met outside by the monks, who presented the usual offering, a little dirty white scarf of flimsy silk, called a “katak.” On one side of the entrance were a number of prayer drums. They are cylinders varying in size from a big drum to a child’s toy, and revolve on an iron axis fixed at top and bottom. They are filled with written or printed prayers, and being set in motion, rattle off a great number of masses in no time.

The refectory is a kind of chapel, and châng is not allowed to be drunk in it, nothing stronger than tea. We were conducted to the regular chapel through low dark passages, a monk preceding us with a torch. The chapel too was nearly dark, and I dare say looked better by torchlight. At the further end were curtains of China silk of bright coloured patterns, forming a screen across the apartment; and behind this were the protecting deities of the monastery—images with the most hideous countenances possible. These distorted faces, with most satanic expression, doubtless have an appalling effect on the rustic population, on the rare occasions when they are admitted to behold them; for as each in succession was

revealed the monks turned their eyes on our faces with a mingled expression of pity and triumph, which seemed to say, "Poor gentlemen! this one will frighten them terribly!"

If a preference may be assigned to any over the rest, I should say that Gonbo Lha* and Edom Lha for gods, and Paldun Lhamo for a goddess are the most awful looking. All these deities are known by the generic name "Chos Kyong"—religious protectors.

I asked the monks what steps would be taken by these *protectors* in case any of the holy places were desecrated, and was told that they would immediately set fire to the prayer flags which wave above the monastery! Perhaps our most Gracious Majesty Queen Victoria would feel flattered did she know that these people look upon her as the incarnation of the Goddess Paldun, the personification of goodness and power.

I subsequently came upon the following interesting passage in "Csoma de Koros' Grammar. "In the eleventh century, in the time of Atisha, a learned man of Bengal, Buddhism, that had been nearly abolished in the tenth century, commenced again to revive in Thibet. This celebrated Pundit (Atisha), upon repeated invitations, at last visited that snowy country, going first to Guge in Nari (Nari Khorsum†), and afterwards to Utsang (Lhassa), where he remained till his death in 1052. Bromston or Brom, his pupil, founded the Rareng or Rugreng monastery (still existing), and with him originated the Kadampa sect, from which afterwards issued that of Gelukpa." Now Rareng is the name of a large village across the Spiti river, and nearly opposite the Kee Gonpa, which is evidently referred to.

About two miles from Kazé the slaty rocks came quite down to the Spiti river on both sides, the only place in the valley where I have seen this. A frail sunga bridge spans the river here.

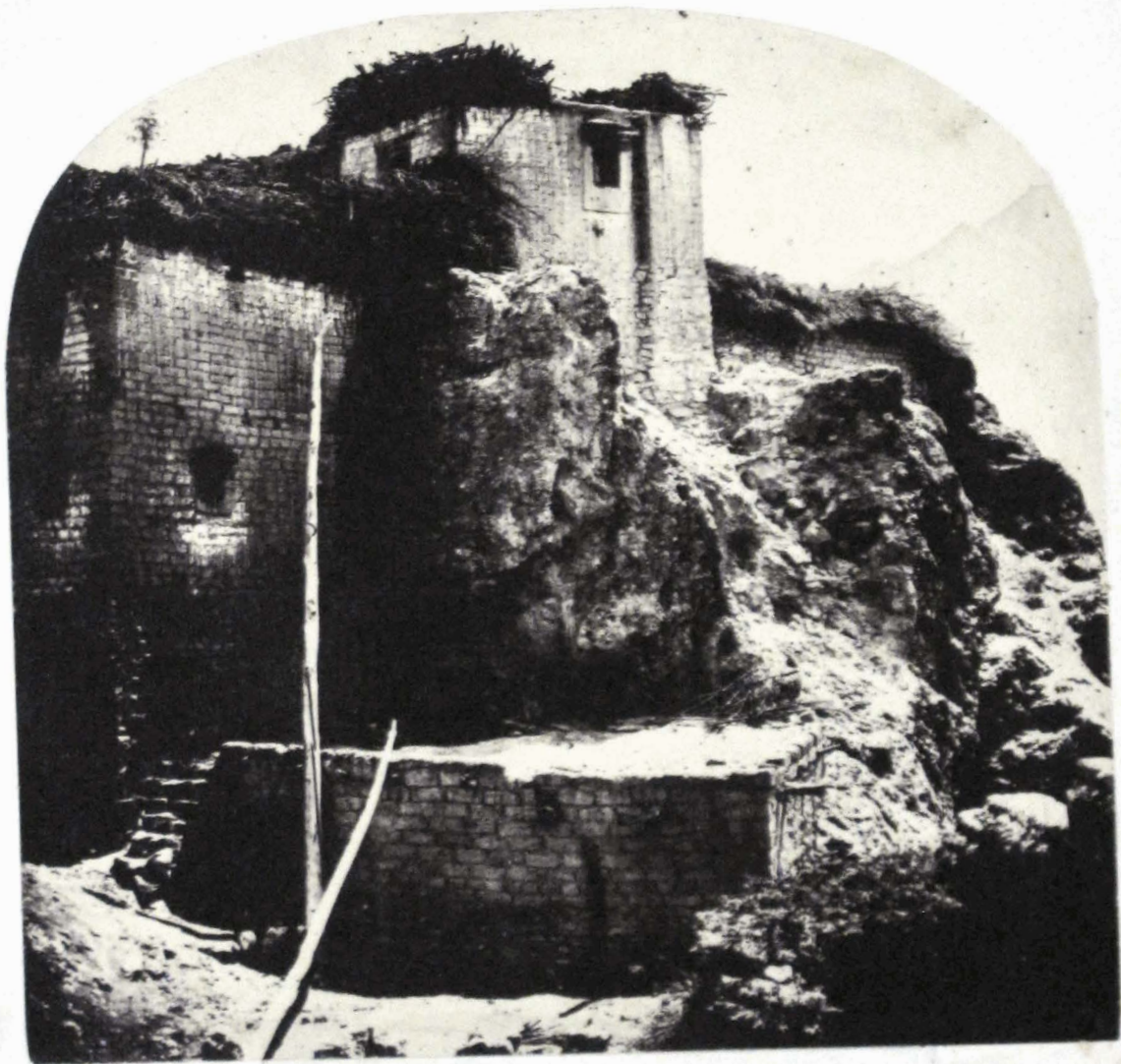
July 17th. We left our camp at Kazé, and started off to breakfast and spend the day on the uplands to search for fossils. At a height of some 15,000 feet above the level of the sea, among the minute detritus of black shale, mixed with bits of lime and sandstone, are immense numbers of water-rounded clay-slate stones. Multitudes of these have split of themselves (I suppose from the extremes of cold and heat to which they are subjected), and you find in many of them, and in various states of imperfection, ammonites, belemnites, and a few other kinds of shell, chiefly bivalves. I do not think we found a fossil in any of the unbroken stones, though we broke a good many in the hopes of getting some more perfect specimens. The black ammonites are worshipped in Hindoostan under the name of "Saligram!"

We breakfasted at the fossil ground, and were having a smoke afterwards, when up came two monks from the neighbouring monastery of Tangyoot, on ponies, and requested the honour of our presence at a horse race. They pressed us to ride their ponies, but their saddles were not comfortable for a man of my length, so I walked in preference.

It was three or four miles to the monastery, which was situated very picturesquely on

* Lha means a god; Lhamo, a goddess.

† Nari Khorsum is the name of a province in Chinese Thibet.



21. HOUSE IN SPITI.



22. KEE MONASTERY.

a point where the uplands jugged out above the valley. We passed two or three small villages on our way, where the crops were really forwarder than in the valley below. To be sure the fields were regular sun traps, facing the south, and sheltered by black rocks on the north, east, and west.

Near the monastery we found assembled some thirty monks, a few zemindars, and a band of strolling musicians. The latter struck up a lively tune on our approach, which was probably the Spiti version of "See the Conquering Hero Comes." The leader played an instrument resembling a clarinet in appearance, but producing sounds like the bagpipes.

The abbot was a stout good humoured old fellow, with rather a courtly manner. His monastery has the honour of ranking among its monks the Nono's younger brother, who, according to custom, is doomed to a life of celibacy. His relationship to the great man is, however, by no means forgotten. He was very conspicuous in a long robe of bright yellow satin, with a high conical cap of red cloth, and was formally presented to us. All their reverences had drunk as much châng as was good for them, for though in the best possible humour, they were rather noisy and confused.

The horse racing consisted in a dozen or more lambas, mounted on ponies (some of which were mares with little foals running after them), riding back 300 or 400 yards (some more, some less), starting when and where they liked, tearing along a pretty level path (with one or two awkward grips in it), coming as far up the hill we sat on as the pony's wind would permit, and then back again to repeat the process. They all seemed to think it splendid fun!

When we took our leave they all got on ponies (two on one, some of them), and with a banner in front, and the musicians (all on horseback) playing a cavalry march, betook themselves to some tents pitched a couple of miles off, where they were going to drink more châng.

Châng is the poorest and nastiest attempt at a "barley bree" I ever tasted. It is manufactured as follows. Take a lot of parched barley, and add about double the weight of water; put in a pinch of a kind of dried yeast called "phav," about one dram to ten pounds of malt, and leave it to ferment for two or three days. When sufficiently fermented pour off the water, and this is your XXX for festive occasions. Add more water, and leave as before, and you get small beer. The stuff I have called yeast is imported, the best from Ladak, an inferior kind from Koonawur. Its composition and manufacture are a secret—it looks like a bit of uncoloured milk cheese. The yeast obtained from the fermentation of châng makes bread rise famously, and we used it all the time we were in Spiti.

The procession formed by our friends was a very curious one. The abbot wore a head dress composed of a small copper saucepan, on the top of a large one, with a round knob above all. I never saw this "neat thing in hats" again, though I afterwards got up a procession to photograph.

July 18th. Marched to Dhunkur, the road presents no particular difficulties, distance thirteen miles, four furlongs. About three miles from Dhunkur, crossed the Lingti river,

which here joins the Spiti, on a wooden bridge; the ponies had to ford or swim. About a mile higher up is a suspension bridge, made of ropes of willow twigs thrown across the Spiti river, and about ninety feet in length. We afterwards had to cross this on our way to and from the Peen valley. The river Peen flows into the Spiti about a mile above Dhunkur.

The fort, monastery, and village of Dhunkur are most picturesquely situated on a bluff of conglomerate limestone, which is connected with the uplands by a narrow ridge, considerably lower than the fort. The rock, where not in some way protected from the elements, gets washed into sharp conical pinnacles, which have a peculiar appearance. The fort is nothing but an ordinary house of rather larger dimensions than usual, crowning the summit of the height, with the remains of a mud wall on the west side, erected it is said by the Sikhs. There is no water procurable on the hill, but low down on the east side is a curious kind of covered way, like a big drain, extending to the rivulet below.

We were encamped on a gently sloping space surrounded by fields, used in harvest time as a threshing ground, and with a little irrigation channel close by. The last two days the weather had been bright, and the sun very hot. The crops were considerably more advanced than higher up the valley, and some of the wheat in ear.

However interesting Spiti may be to a geologist, it presents but few attractions for the botanist. As already observed, trees are nowhere seen in Upper Spiti, except occasional beds of willow. The plants and shrubs are few. The most striking is the wild rose, which grows in great luxuriance all along the valley below Khiebar, and in the most barren spots gorse—the real prickly gorse of the English fox cover, but stunted, supplies the greater part of Spiti with fuel. There is also a kind of stunted broom, and buttercups and cowslips. These latter grow on the uplands only, at a height of 14,000 to 16,000 feet. There is a flowering shrub, something like heather; a kind of pink dandelion, and a creeper with leaves like a passion flower and a yellow blossom. Wild flax and garlic are abundant. About Dhunkur there is a great quantity of a prickly shrub, which, Mr. Heyde says, is the *Hippofa Salicifolia*, common in Lahoul. This is much used for fuel. The wild currant bush is also common. Near Khiebar we saw a handsome blue campanula, orange coloured inside, with a very disagreeable smell; and a small scentless shrub, looking like lavender. Thistles grow everywhere in profusion, and constitute the hay crop of Spiti, being cut and stored for winter use to be chopped up with straw.

July 19th. Sunday. Read service together. Mr. Heyde makes me officiate, as he does not feel quite safe about his English pronunciation, though in truth he knows the language very well.

July 20th. Having reached the capital of Spiti, I proposed a long halt, for three reasons. First, I required certain statistical information from the Nono regarding the grain tax levied by him, and the church-rate levied by the monks. Secondly, I wanted to get some photographic groups of the people; and, thirdly, I must wait somewhere for Hurree-Chund.



Dhankur Fort V. 1958

23. DHUNKUR.

I should here mention, that with a view to furthering the great object of my trip (viz., improving our commercial relations with Central Asia by this route), I had addressed a letter to the Garpoon, the Chinese official at Gar (shown in our maps as Gartôk), mentioning the object of my visit, and requesting him to meet me on the frontier to arrange matters. This letter being translated into Thibetan, and written out by Mr. Heyde, I had dispatched by Hurree-chund to Gar, directing him to obtain all the information he could, and to note down the names of the halting-places and state of the roads. He left me at Khiotto to go by the Parang Pass, through part of Ladak, and so *viâ* Tâshigong to Gar. This route is circuitous, and has also the disadvantage of passing through the territories of the Maharajah of Cashmeer; and it was with much reluctance that I gave my consent to Hurree-chund going by it. The reason was this:—In the spring of the year, Dr. Garden, Superintendent of Hill Vaccination, came with his staff of vaccinators into Spiti and vaccinated everybody, from the Nono downwards. Some people from Thibet, who had come across the Parang Pass on a trading speculation, on hearing of this hurried back to their homes, and said that *small pox* was raging in Spiti, and that *numbers of people had died!* This being reported by the village authorities to the Garpoon, orders were received to keep Spiti in the strictest quarantine; and some Spiti men who tried to go direct into Thibet were turned back. At first I would not believe all this, but gave in at length, and it was well I did, as the sequel showed, or my envoy would certainly have been turned back. The Nono keeps what he calls his record office in the Fort here, and (he says) always comes here when he has a case to try. His home however is across the river, about six miles higher up.

Now that we are going to be stationary for some time, I must introduce the Nono and his eldest son to the favourable notice of my readers. Here they are. On one side, a jolly doctor from Laloong in the Lingti valley, a great powerful fellow, the finest make of a man in Spiti. On the other, a monk from the Peen monastery. Why do these people screw up their eyes and mouths I wonder? I have an idea that all Tartar tribes do. Is it the cold bleak winds of their boundless deserts, or smoky houses, or both, or merely a trick? The dress of the men consists, first, of a pair of boots, of which the foot is of leather, and the legs of woollen cloth of different colours, first a bit of yellow or red, and then a bit of black, secured under the knee by a garter. These are called “hlam.” The upper garment is a loose coat of thick home-made blanket with long skirts, belted round the waist with a coarse scarf. They all wear ear-rings and necklaces of turquoise, coral, and amber beads. Every man has an iron pipe stuck in his belt, a tobacco pouch, and flint and steel hanging to it; and a little wooden bowl in the breast of his coat, used as a drinking vessel. On their heads they wear generally a little round cap, but some have a kind of Scotch cap, the loose top of which hangs down over the cheek. Monks, except those in high position, ordinarily go bareheaded. The women, too, go bareheaded. The unmarried ones have one or two turquoise beads in their hair, but the married ones wear a most stupendous ornament called a “perak.” This consists of a leather strap about one-and-a-half inches broad, and extending from the forehead down the back to the waist, along which at intervals of two inches are attached

large turquoises in the rough. These turquoises come, it is said, from China. They are not the precious turquoise which come from the Persian mines of Nishapoor only, but large stones, sometimes weighing an ounce or more, generally of an inferior colour, and full of flaws, and selling for about five rupees an ounce.

The dress of the women is a long gown like that of the men, and a pair of long loose trousers tucked into the boots, which are worn like the men's. They have no pipe or chukmuk, for, to their honour be it said, the Spiti women do not smoke. When working in the fields (for all the farm-work except ploughing is performed by the women) they remove the perak (which is heavy) from their heads, and let it hang down from the two ends, one of which is fastened to the shoulder and the other to the belt. In hot weather the arms are slipped out of the gown sleeves and tied round the waist. The men are engaged chiefly in cutting and carrying fuel for the winter months, a large supply of which is piled on the tops of the house walls. When fording a stream, the men most unceremoniously tuck up their skirts to their waists. The women, Mr. Heyde tells me, generally do the same; but I must do them the justice to say that I have not seen this, except in the case of unmarried girls. The women always rolled up their trowsers and tied them round the upper part of the thigh with their garters, the boots of course being taken off.

There is no symptom in Spiti of that abominable Mohammedan and Hindoo custom of veiling the women. Unmarried and married, they associate freely with the men, full of jokes and fun.

It has been already stated that all younger sons are doomed to celibacy. They do not seem in the least to repine at their fate. The obvious result is a great proportion of unmarried women, and strange to say, these do not seem much distressed by the want of marrying young men! The state of society is however extremely demoralised, as the following shows. I was photographing some men to-day, and several young women assembled near me, laughing and joking with the men. Four were from twenty to thirty years of age, and one only sixteen. Mr. Heyde asked where their husbands were, on which they replied that they were all unmarried (literally *virgins*.) Upon this a tall long haired, rather good looking priest from Soomrah, in Koonawur, (who understood Hindoostanee, and I believe had been invited by the Nono to assist his interpreters during my visit), observed that one of them had a child already, and that all of them probably would be in the same predicament before a year was over! This was met by a laugh! no denial, and no indignation!

July 21st. Went up to the Fort and got some stereoscopic pictures. The Nono seems rather reluctant to furnish information, so I suggested that *if more convenient* he might come to Dhurmsala (my head-quarters near Kangra) and give me the statistics I require *there*. He would as soon go to Botany Bay, so I think the idea will stir him up a little!

Mr. Heyde went to a village called Mânee, about three miles down the valley and across the river. There is a twig bridge on which he will cross. He is on the look out for



24. A RICH DOCTOR, THE NONO, HIS SON, AND A POOR MONK.

a good site to build a house on, as there are more missionaries than required at Kielang in Lahoul, and their object is to push forward into Thibet, and eventually into Mongolia, as the Mission was originally organized, and the Missionaries educated for preaching in the Mogul language.

In the afternoon I went up to the Moors in search of game—got none, and slept up there. In the morning saw a herd of nâbo, but not before they saw me, so there was no chance of a shot, and returned to Dhunkur for breakfast. I could see the village of Mânee, where Mr. Heyde has gone, with a pretty little lake above it. This lake evidently received the drainage of several valleys, but was not nearly full owing to the porous nature of its bed. Curiously enough, the water which oozed out, after percolating unseen for several hundred yards, emerged from the hill side in a single stream of considerable size, and formed a beautiful cascade down the rocks. These hills seem to be formed of heaps of loose stones over the substructure of rock, for to-day in crossing a steep bank of loose shale and stones of the most arid appearance, I could distinctly hear a rivulet trickling underneath.

This afternoon (22nd) Captains Henley and Ruthven, of the Rifle Brigade, marched in. They had been through Cashmeer and Ladak, and came over the Parang Pass. They are nominally on a sporting tour, but describe the country as destitute of game, except wild horses, on the plains, which they would not shoot, and wild geese on the Tschomorire lake, which they *did*. We dined together, and one of these geese had the post of honour.

My meeting with the Riflemen was amusing, for after the first ordinary salutations and questions, we all found ourselves gazing intently but furtively at one another's *noses!* The effect of the sun and wind on those prominent organs is really very serious—not only do they become red as the setting sun, but they swell and crack in a most alarming way. I found great relief from coating mine with collodion!

July 23rd. Photography.

July 24th. The Riflemen started up the Peen valley, on their way to Simla. A complaint was brought before me to-day, and as the report of a case in court throws light on the manners and customs of a people, I shall give this and some others in detail. The complainants were musicians, who stated their case thus:—At an evening party two of them asked some blacksmiths to let them have a smoke at their pipes. The blacksmiths refused, saying that the musicians were *low caste*. The musicians snatched a pipe and smoked it. There was a slight scuffle, and the blacksmiths caught it rather severely from the *tongues* of the female musicians. A few days after, the blacksmiths of four out of the five Kothees in Spiti (Peen Kothee holding aloof), held a conclave, and resolved to vindicate their outraged dignity. Accordingly they assembled to the number of about eighty, attacked the musicians' house, plundered everything in their possession, and took two of them, the original aggressors, captive, and held them as hostages for good behaviour. Defendants allowed the correctness, of this statement, even to the detail of plundered property, which (including as it did one item of seven horses), I had thought exaggerated. They asserted that the musicians were *low caste*, and that they could not smoke pipes with them, and brought a

countercharge that a gun and an earring belonging to one of them had been taken away in the scuffle by the musicians. This was acknowledged, and the property produced on the spot, as was also that taken by the blacksmiths.

Here was evinced a lawlessness which it was necessary to put a stop to, and I determined to let them see how long the arm of the law is; so instead of merely selecting ringleaders for punishment, I convicted the whole lot, comprising forty blacksmiths and two musicians, and sentenced them to one month's imprisonment and two rupees fine each, awarding compensation to the plundered parties out of the fine. There is no jail in Spiti, and the greater part of the time would have been consumed on the road, had I sent them to Sooltanpoor, so I appointed men to guard them (paying the guards too out of the fine), and set the whole gang to work at the roads, of which we and the public afterwards reaped the benefit.

A petition was put in afterwards by the blacksmiths, coolly requesting me to declare that the musicians are of low caste, and are never again to smoke a blacksmith's pipe! Of course I snubbed them, for I should be sorry if the curse of caste should become firmly rooted here.

It is evident however that there is a tendency this way. There seems to be something irresistibly attractive to frail human nature in this doctrine that others are inferior to yourself, and that contact with them is polluting, for the Mohammedans of India have adopted it in a great degree from the Hindoos, and these Spiti Tartars, from their intercourse with Hindoo traders, are beginning to imbibe it. The Maharajah of Cashmeer does all he can to introduce it in Ladak, strictly prohibiting the slaughter of kine, and encouraging the distinctions of caste; and the Nono has an idea that he ranks alone in caste as in office—indeed I have heard a whisper that he tacitly encouraged the blacksmiths to resent on the musicians their infringement of caste rules! Yet all the Spiti people will eat beef if they can get it on the sly, and they have no hesitation in eating carrion; a high caste Hindoo would treat them as Pariahs!

There is, however, no doubt that the musicians in Spiti are a different race from most of the Zemindars or landowners, as the annexed photograph will show.

Whilst at Dhunkur two claims were put forward to authority and privileges independent of the Nono (the word Nono means deputy, and the name of the Nono of Spiti is Koolyung). Both the claimants reside in the Peen valley. One is called the "Chota" (little) Nono. His ancestors resided in Thibet, and were professors of medicine and surgery, and in lieu of all fees were granted certain lands in the Peen valley, free of revenue. Some fifteen years ago the Nono Koolyung's wife's brother's daughter became a widow, and the Nono induced the Chota Nono, then a mere boy, to come and reside in the Peen valley and marry the young widow. When he came to man's estate, this youth asserted a separate jurisdiction in the Peen valley, independent of the Nono, who is extremely indignant at such ingratitude.

I quashed his claim.

The other claimant of independence, named Chiring, called by his friends the Garpoon



25. UNMARRIED WOMEN AND GIRL OF SPITI.

(a word formed from “Gar” a fort, and “poon” fellow—Indian “wàla”) is descended from ancestors who certainly held the office of Garpoon in the Peen valley.

He produced a “sunnud” (or patent), addressed to one of his ancestors, guaranteeing the office to the then holder *and his descendants*. However, this young man is quite unfit to exercise any authority, even were it desirable to have two rulers in Spiti, which it is not.

It seems that formerly there were two officials in Spiti, a Nono and a Garpoon—the latter being the chief military authority, responsible for order and the administration of police and justice, the former being in charge of the fiscal department, and entrusted with the collection of taxes, disbursements of every description, and the public accounts.

The document produced by the would-be Garpoon was signed by the Wuzeer of Lê, (in Ladak), and sealed with the “lal Châpa” (Châpa signifying seal) or “red chop.” It was written in the character now in use for letter writing—equivalent to our running hand—and differing from print as much as our writing and printing differ. The Nono and several of the best readers in Spiti had considerable difficulty in deciphering it.

The printed character bears great resemblance to the Sanscrit. Great quantities of books are printed in the Ladak and Thibetan monasteries, and are used in Spiti by monks and others who can read. Printing is hardly the proper word—I should have said woodcuts, a block of wood being used for each page, and the pages afterwards stitched together into books. The carving is very neatly done, and must be a laborious process, as the characters are left in relief.

The document above alluded to, purported to be written in *the year of the fire ape*. The system of dates used in Thibet is more curious than convenient. The Spiti people are not very well up in it, and the following exposition is borrowed from Cunningham.

For ordinary domestic events a cycle of twelve years is employed, each year being named after an animal in the following rotation—

1 The Mouse Year.	5 The Dragon Year.	9 The Ape Year.
2 „ Ox „	6 „ Serpent „	10 „ Bird „
3 „ Tiger „	7 „ Horse „	11 „ Dog „
4 „ Hare „	8 „ Sheep „	12 „ Hog „

In accounts, and generally in all written documents, or printed works, a cycle of sixty years is used; and to distinguish these, the names of what these good people call “the five elements” are combined with the above-named animals. The “elements” are 1, wood; 2, fire; 3, earth; 4, iron; 5, water; and these are used in regular rotation,* thus—1, the wood mouse; 2, the wood ox; 3, the fire tiger; 4, the fire hare; and so on. Thus, the first rotation of the five elements gives names to ten years. In the second rotation you commence with the wood dog, in the third, with the wood ape, in the fourth with the wood horse, and so on, without any repetition of the combinations, till after sixty years. Thus, if you know the name of the present year, you can calculate how many years have elapsed since any

* Csoma de Körös says that each of the elements has the male and female affix alternately.

other named year in the present cycle. But in the document alluded to, the *number of the cycle* is not mentioned, so that it is impossible to tell whether it was written in the present cycle, in which case 1843 would be the date, or in some previous cycle—a want of accuracy not to be looked for in an official document!

July 26th. Sunday.

July 27th. I had summoned representative monks from each of the five* monasteries of Spiti, in order to consult them regarding the proposed commutation of grain payments or tithes, and they were requested to come in full costume. To-day they arrived, forming a procession at the village, and marching up to my camp to the sound of barbaric music.

The Chief Lambas,† or Abbots, appeared in long yellow robes, with high conical head-dresses like mitres; the others, mostly with shaven heads uncovered, whilst some were got up in masquerade, with their faces concealed by a piece of cloth, huge carved wooden head-dresses, and robes or petticoats, extending to the ground. These advanced with a series of gyratory motions, reminding one of the clown on a hobby-horse in a pantomime. Others again bore musical instruments of various sorts. One fellow had a tremendous trumpet, requiring an assistant to hold up the end, and giving forth rather a fine bass bellow. Others had small horns like the hunting-horn of olden days; others blew the conch, and even the Abbots had cymbals which they played with great vigour and effect.

After photographing these groups we retired to my tent to discuss the commutation of grain rates or tithes, to a fixed allotment of glebe land. Mr. Lyall, late Assistant Commissioner of Koolloo, had reported on this subject last year, under the impression that the grain rates were not paid voluntarily, and I had been directed to investigate the matter.

I explained that Government could not sanction the collection of a compulsory grain tax, and could not interfere if payment were withheld; but if the Zemindars chose to make over a certain amount of land for the maintenance of the monasteries, without diminution of the Government revenue, they could do so, the transfer would be recorded in my office, and no future dispute could arise.

The monks seemed to relish the idea very much, as it would give them a “material guarantee” for their livelihood; but the Zemindars unanimously objected. They urged that under the present arrangements the monks had a direct interest in the welfare of their parishioners—helped them in their fields and in carrying travellers’ baggage, did any bit of handicraft required, frequently came among them, and in short were, to some extent, dependent on their parishioners: whereas by the proposed arrangement, the monks would be quite independent; they would cease to look after their welfare, spiritual or temporal, and would no longer take a share in their labours.

I thought the arguments adduced by the Zemindars very sensible, and acceded to their wishes, subject to the sanction of Government.

* 1, Kee; 2, Tangyoot; 3, Dhunkur; 4, Tâbo; 5, Peen.

† Most travellers spell the word Lhama, but the sound appears to me to be best represented by the orthography I have used.



26. MARRIED WOMEN OF SPITI.

Certainly there is no fear of the Lambas being allowed to starve, if one may judge from the submissive reverence with which long rows of heads, male and female, were bent to receive the holy touch and blessing of the priests as they filed off after our interview.

I noticed a curious instance of incipient civilization also to-day. The Nono's eldest son, who was sitting next but one to me, wanted to blow his nose. It evidently occurred to him that in such an august presence it would be a *gaucherie* to do it with his fingers (the ordinary method in these parts), so he used the skirt of his robe as a pocket handkerchief; but having effected the operation, he spread on his knee the portion of his skirt which had been employed, and rubbed it carefully with his hand till no symptoms remained!

July 29th. The Nono invited us to some horse-races, and provided a number of ponies for us and our servants. The race-course was the dry bed of a small lake about 800 yards in circumference. We were preceded on our way there by a cavalry band, making the most discordant noise. The first thing our Spiti friends did was to seat themselves in a comfortable place, protected from the wind by a low wall, and commenced drinking *châng*. The Nono and his immediate guests and retainers were served from a private vessel, resembling a huge brass teapot; whilst liquor for the *hoi polloi* was kept in a small mussuck (cured goat-skin). Having gone on drinking till we exhibited symptoms of impatience, some of the "swells," including the Nono's eldest son and a few of the more distinguished villagers, performed a dance to the sound of a flageolet and kettle-drums. This dancing was the most ludicrous thing I ever saw, not excepting the races that succeeded. It was a kind of solemn pacing, or rather sidling to the time of the music, making great play with a long scarf, which was kept extended with both hands, and one end swung over either arm alternately. But the steps! Never talk of the light fantastic *toe* again. One foot being raised and poised for a moment, is put down, as if on eggs, side foremost, with the *heel* well down, and the other foot whipped up, as if something had burnt it, poised and put down in the same way, the scarf working all the time; and in this manner they move along, first in single file and afterwards holding hands in a circle. I think it was the huge ungainly boots, contrasted with the mincing manner that made the thing so laughable. After this the racing (!) began—everybody starting where he liked, pushing his wretched pony to a gallop and coming in anywhere. The rider leans quite over the pony's head (so that if declared to win by a nose, it must be the rider's and not the pony's nose), and keeps himself in that position by holding the bridle with both hands close to the bit. As the Nono's son was riding a course, the bridle broke, and down he came on the ground, and the same thing occurred to another.

Their dignity was a good deal hurt, as they pique themselves on their riding (and really do stick on well), and elaborate explanations were entered into to show me that if the bridle had not broke, it could not have occurred. The saddles and bridles are neater and better put together than I could have expected in that wild region. The iron-work in particular is good, and they use the buckle and tongue, which has not yet made its way into Hindoostan.

After the paces of the ponies had been exhibited, a newspaper was stuck up as a mark on a little heap of earth, and then they all tried to hit this paper, riding past best pace, one

with a matchlock loaded with shot, another with bow and arrow, and a third with a sword. One had a pistol which declined to go off. Some of the ponies thought the newspaper dangerous, and objected to go near it, bolting mid-course. All this was gone through time after time in the most solemn way, the actors evidently believing that they were making a very imposing martial display, whilst the utter inefficiency of the weapons, the diminutiveness of the ponies, and the pace they went (about half as fast as a man could run), with great bellies full of grass, combined to render it a most ridiculous exhibition. I tried in vain to photograph them.

July 31st. Marched to Kooling in the Peen valley, fifteen miles.

The Spiti river could only be crossed by retracing our steps to the twig bridge already spoken of, above the junction of the Lingti river.

We walked, but the Nono and others had ponies, which were driven into the river a little way below the bridge, and managed with some difficulty to swim across, being carried down stream some 200 yards. From this I argue that a man could not swim across the Spiti, for a horse swims at least twice as strongly as a man, and the latter would therefore be carried down at least 400 yards; and from the experience I had at Losur of the effect of the cold water, I feel sure no one would retain the use of his limbs for that distance and time. My dear old black retriever Drake was rather an anxiety to me here. He was too big to carry, and the footing on the bridge was too precarious for him to walk across, so I had him led down to the place where the ponies entered the water, whilst I went across by the bridge and down to the river opposite, then on my calling him he plunged in and swam over most gallantly. Had he hesitated in the middle he would have been carried away and probably lost; as it was I could only just keep up with him, running at full speed along the bank, so swiftly did the stream carry him down.

From the bridge we turned down stream. The path is along the face of a precipice for half a mile, and is difficult and dangerous for men with loads—impracticable for ponies. About three miles brought us to the bank of the Peen river—a broad and rapid torrent that here joins the Spiti. We went down to the point of junction, though it gave us a couple of miles longer walk, as I wanted to see if there was any good point for throwing a bridge over the Spiti nearer Dhunkur. We found the whole of the flat plain between the two rivers covered with a strong prickly shrub (*Hippofa salicifolia*) four to five feet high, though from the opposite side of the river it looked quite bare. The narrowest place we estimated at 130 feet, which might be reduced to 110 by building an abutment into the river, which is shallow on the south side. I subsequently obtained Government sanction to a grant of money for attempting a wooden bridge at this place. Regaining the path, our route lay up the west side or left bank of the Peen river, on both sides of which the rocks rose abruptly from the bed to a great height. The path lay along the gravelly bed when dry. Scrambling a little up the bank when the water flowed on this side, and in one place rising about 1500 feet to get over the ridge of a rock that jutted perpendicularly out into the deep stream. Kooling is the residence of the Chota Nono. About three-quarters of a mile up the valley,



27. STROLLING MUSICIANS.

and some 500 feet above the river is the Peen Monastery, close to the village of Koonree, where Chiring the "Garpoon" lives. The monastery is a small building not capable of holding more than thirty persons. The monks of this monastery are not like those of Kee, and Dhunkur, of the Gelukpa sect, who are enjoined a celibate life. They are Ngyangmas, and are permitted to marry, which accounts for the smallness of the monastery, the inmates of which were only two old men. The monks of Peen, instead of being shaven, wear their hair in long elf-locks, and generally have a necklace of 108 bone buttons made from human skulls.

The Peen valley is greener-looking than the Spiti valley, and though so narrow has proportionally more pasture. It is said that more rain falls here than elsewhere, the clouds probably coming over the Bhâba Pass. There are fourteen villages according to the settlement records; but several hamlets, or offsets, of the parent villages have since sprung up. The largest villages are Kooling and Sungum, at the junction of the Peen and Parakiu.

About a mile above Kooling the Peen river is joined by a large tributary called Parakiu (spelt in the survey map Parâkto), which runs from south to north. The Peen river flows from east to west up to the junction, and then turns to the north down to the Spiti river. The Bhâba Pass, the most frequented route between Rampoor Bussahir, Spiti, and Ladak, is at the head of the Peen river. It is described as somewhat difficult, and must be from 15,000 to 16,000 feet high.

Aug. 3rd. Marched from Kooling to Kâgha, three miles and a quarter. Could one reach the source of the Parakiu and cross the snowy range we should be in Koolloo, at the source of the Parbuttee river above Manikurn. I sent some men to explore the upper valley of the Parakiu; they reported that the river flowed between precipitous rocks, and that it was impossible to ascend more than a few miles, as at this time of year there is too much water to go along the bed. I took a small tent and went into the mountains to look for ibex, following the course of a small stream that runs into the Parakiu. Pitched for the night about six miles up this valley, and near a place where the clay slate rock, intercepted by the valley and exposed to atmospheric influences, decomposes and breaks off, revealing innumerable ammonites, different from those above Kâzè, being smooth whilst the latter were ribbed. Those of Peen too were much larger, reaching sometimes a foot in diameter.

Aug. 4th. Started early in pursuit of game, saw quantities of snow pheasant (goolind). About 6 a.m. we reached a salt lick, where my guides proposed I should lie in ambush till 12 o'clock, when, said they, the ibex would be sure to come. This was more than I had patience for, so I chose a more active pursuit. Before long we sighted a herd, but on getting nearer found they were only females with young ones. Just at this time my Guddee servant, Chumaroo, came running up to say that as he was coming along at the head of the coolies he saw a herd of several fine male ibex up a ravine, that he told the coolies to stop where they were whilst he came on to tell me. Started off for the ravine, which seemed a splendid place to get a shot; but just I reached the edge saw the coolies quietly walking along past the mouth of it far below. The rascals wanted to get to their halting-place, and did not care

twopence for spoiling my sport. Of course the ibex had vanished. I followed their tracks right up the ravine which led on to a high moorland tract, above which again towered a lofty peak—the end of a ridge which seemed to separate us from the valley where I had sent my tent. So, disappointed and tired, we set to work to breast the ridge. We reached this at length, and the view almost compensated me for the labour. I think the height must have been fully 17,000 feet, for snow was lying unaffected by the sun's rays on the southern slope; and a little below us, but some distance off, and sheltered by a lofty ridge from the southern sun, was a vast bed of snow and ice evidently perpetual. This was not on the main ridge between Spiti and Koolloo, but on an off-set range separating the valley of the Parakiu from that of the Rattang, another tributary of the Spiti. This splendid range lay full before me. After running some twenty miles from the parent chain it ends abruptly just above the junction of the Peen and Spiti rivers, in a superb bluff marked in the survey maps as 18,000 feet high. I have already noticed this peculiar feature of the ridges which shoot off from the main mountain chains on both sides of Spiti; viz. that they preserve so great and uniform an elevation throughout, ending abruptly where the river has cut its bed, that, but for the deep river channels, the whole province would be one great table-land varying from 15,000 to 18,000 feet high. The regular horizontal appearance of the limestone and slate strata which I have noticed as prevalent in the Spiti valley, is varied in the upper part of the Peen valley, commencing at the junction of the Peen and Parakiu rivers with a grand mass of dark slate tilted nearly perpendicular to the horizon. Beneath this the limestone is still seen in a horizontal position, as deposited, we may suppose, by water; but how came the slate in so extraordinary a position whilst the limestone is undisturbed? Some messengers I had dispatched by the direct route towards Gar to obtain tidings of Hurre-chund returned to-day with a letter from the head man of the frontier village of Thibet to the Nono, stating that owing to vaccination (which they doubtless thought was inoculation) having taken place in Spiti, the Garpoon had sent strict orders to prevent intercourse, and therefore he was obliged to prohibit my messengers from entering his country. The messengers stated that no one would come near them. They were communicated with by shouting from a distance, and the letter which they brought was left on the ground for them to pick up. Nothing had been heard of Hurree-chund as far as they went.

Aug. 5th. Went out early this morning, but saw no game except snow pheasants. On my way back the salt lick lay in the way, and I thought I would give it a chance. It was 8.45 when I got there, and I lay in a dry gully till 11.50. I was determined not to move till my guide said there was no further chance, as they had been rather harping on my refusal to sit still and let the game come to me. But at this time one of my men (Imam Bux) was seized with such violent spasmodic pains in the chest and side, that I was obliged to relinquish my ambush and attend to him. I was not sorry to be relieved from my irksome position, enlivened as it had been by swarms of little black ants which made voyages of discovery all over me. I bled my man, and he was able to proceed slowly for half a mile further, to a level place with a clear spring, where I intended to breakfast; but he still



Lamas or Monks

29. MONKS IN FULL DRESS.

suffered so much pain as to necessitate the application of my patent mountain blister, which consists in continued gentle friction of the part affected with a small flat stone—sandstone preferred, but granite will do. I have never known a case which did not yield to this treatment within twenty minutes. There were a great many yâks and goats pasturing up in these hills, and a large party conveying brushwood for fuel on yâks passed us. This accounts for the scarcity and wildness of the game, but I have little doubt good shooting might be obtained by going further from the inhabited parts of the country. Reached camp in the evening.

Aug. 6th. Moved back to Kooling. I had brought up with me a quantity of small presents, which I intended to distribute as occasion offered. Among these were 100 small packets of tea, made at the Government factory of Holta in the Kangra valley. I distributed some of these in Spiti, but I could not arrive at any trustworthy conclusion as to the estimation it was held in. They thought good Souchong better than coarse Bohea, however. I afterwards offered to let the Spiti people purchase some of these packets at what they cost, but only the Chota Nona, or Doctor of Peen, availed himself of the permission. Finding that among the people of Spiti there was no object in distributing these presents, I availed myself of the opportunity of the Nono deputing a confidential servant with eighteen half-bred yâks to the Gar fair, which is held in September; and made over my stock of knives, scissors, needles, cloth, &c. to him to be bartered for turquoises and Yarkund pushm, merely retaining a few in case the Garpoon should come to meet me, of which, owing to the report of our having small-pox, I was no longer very hopeful. Up to leaving Kangra I had no news of the result, the passes being closed by snow.

Aug. 7th. Marched back to Dhunkur the same way we came. There is a route along the right bank of the Peen to the junction, and then following the right bank of the Spiti to Manee, where there is a twig suspension bridge.

Aug. 8th. Tried all day to get some photographs, but owing to the glasses (supplied by Messrs. Lepage* of Calcutta) being utterly uncleanable, had very little success. Certainly photography in these remote regions is carried on under difficulties, for my collodion (Thomas') shrivels up and peels off the plate when drying, though carefully sheltered from the sun and wind; and I am constantly losing some of my best pictures in this way. It had probably been kept too long by the tradesman from whom I procured it, or possibly the coldness of the plate had something to do with it.

I met a very singular character here. He wore the garb of a Mahomedan Faqueer, and his whole baggage consisted of a deer skin, by way of bed, and a brass drinking vessel. He had not even an extra blanket to protect him from the chilly dews of night, when the thermometer is about forty-five degrees lower than at mid-day. It was at the suspension

* Messrs. Lepage expressed great regret at the glasses being so bad, and stated that the best glass, though quite new, was subject to a kind of efflorescence which spoiled it for photographic purposes. I have had some sent from Thomas', Pall Mall, each glass in a separate grove, which arrived in perfect order, and I believe that allowing the glasses to touch one another has a bad effect.

bridge, on my return from the Peen valley, that he first addressed me, begging permission to send a letter by my post. This was granted. When he brought the letter, to my surprise it was addressed to a Mahomedan in Surat, near Bombay, and in good legible English hand-writing! My curiosity was excited, and I questioned him. He spoke English fluently and well. His account of himself was somewhat in the following words:—"Sir, I am a native of Surat, and having read the wonders of nature in other lands, I conceived a desire to travel; but as I had not enough money to travel as a rich man and pay my way, I turned Faqueer, and my expenses have been defrayed by a charitable public. In 1860, I arrived at Lahore, but at that time the price of food was so high that no one would take concern for a poor Faqueer, as they were all rather thinking how to feed themselves and families. Therefore I found it necessary to do something for a living, and making application to a Mahomedan gentleman in the Government Secretariat, I obtained employment as a copyist in that office. When food became cheaper I resigned my appointment, and again became a Faqueer. I do not think Faqueerie is properly understood or appreciated. It has a delightful freedom from care and trouble, and in peace one can admire the wonderful works of God, and behold in these regions how the clouds, drawn up by the heat of the sun from the vast ocean, discharge their moisture in the form of snow on the highest mountains, whence it again runs off in these torrents towards the rivers, and at last returns to the ocean whence it came." I asked if his official superiors would vouch for his respectability (for I was beginning to think him a suspicious character who ought to be handed over to the Police). He replied, "Well Sir, if they appreciated any respectability in me, they might do so." He then added that he had a written certificate. This he brought me next day, and I found it a genuine testimonial to his good conduct, signed by Mr. Haviland, officiating chief of the Secretariat office of the Punjab Government. He said he was going to the plains *via* Sooltanpoor, and I told him to report himself at the Police office there, which he did, as I afterwards learnt. Isâak Abdool Ruzak was his name.

Aug. 9th. Halted again. Some Spiti monks arrived from Lhasa, where they had been studying. One of them, a resident of Dhunkur, had been about thirty years without ever revisiting his home. He was a stupid-looking old fellow, with a bottle nose, which indicated, I expect, an over-addiction to *châng*. He could not tell me the name of a single stage between Lhasa and Dhunkur, but he said that on this side of Gar there were three rivers to ford and two mountain passes—the Budhpo Lâ, and another—both low and easy; and between Gar and Lhasa are three or four rivers to cross, all bridged, and one with an *iron* bridge.

The political news of Thibet excites great interest in Spiti, and on this the old monk was better informed. About two years ago it seems that the hereditary chief of Lhasa, who still retains authority under the Chinese, by the title of Gyalpo, refused to continue the usual annual payments of grain to the monasteries. The monks could not stand this, and turned out in force. The Gyalpo however managed to bring over to his side the sect of Gelukpas, to the number of 5000 monks, who with the zemindars, or landowners, made his force a



30. THE ABBOT OF DHUNKUR.

respectable one, but not able to cope with the opposite party, who numbered 10,000, and who fought for all that was dear to them, viz., their bodily comforts. The Gyalpo, being worsted, fled to China, and is now, it is believed, returning with a force of 10,000 Chinese, who are said to be rapidly approaching Lhasa. Meanwhile the victorious monks elected a viceroy, but it is supposed that on the arrival of the Chinese force, matters will be amicably settled.

The present Dalai Lama of Lhasa is a child, but his advisers placed him at the head of the clerical party. The other grand Lama, who lives at Tashi Lhunpo, took no part in the dispute. To my question "which party was supported by the Nepalese," the old monk replied that so long as they received their annual tribute of 4,800 rs. (or as he expressed it "thirty times 160 rupees") they did not care for either party. Asking him if he had not brought a good collection of books from Lhasa, I unintentionally rubbed a very sore spot. He had brought some valuable books and other sundries with him, but within twenty miles of Dhunkur, and after entering Spiti proper, the yâk which was carrying them fell off the road down a precipice into the river, and neither he nor his burden were ever seen more.

I told the monk to ask the Nono for reparation, as it was his fault the road was not in better repair, at which there was a great laugh at the old Nono, who was present, and did not seem to like the idea at all, or see the fun of it. I saw the place afterwards, which was not very bad for a Spiti road, and it appeared that the monk's yâk was fighting with another when he lost his footing.

I offered the old Lama some tobacco, but he said he did not smoke, and said it as if he thought the abstinence a virtue. Sugar, however, he owned a weakness for, and I made him happy with a couple of pounds of it.

Aug. 10th. Left Dhunkur and marched to Pokh, seven miles, two furlongs, sixteen yards. And here I must pay a tribute to the women of Spiti. Although they are as plain as low foreheads, little slanting eyes, and high cheek bones can make them; although they are horribly dirty, yet their frank sociability, their cheerfulness and love of fun, the appreciation of a joke, and ready repartee; their pleasant good-humoured voices, and clear merry laugh are (especially after a long residence in the land of female seclusion) extremely pleasant and refreshing. It is surprising how slowly one gets over the ground in these hills. I was two hours and forty-five minutes walking this march, though the road was better than usual. Just before reaching Pokh, there is a pretty little lake filled with waste water from an irrigation channel and perhaps springs. It is surrounded with pencil cedars, one of considerable size, under which was an altar of stones with a trophy of wild sheep skulls and horns, under which we breakfasted. The pencil *cedar*, so called, is not a cedar at all, but a juniper (*Juniperus excelsa*). It is here called Shookpa. There is another trophy of heads and horns on a huge mass of rock close by.

Around the village of Pokh there are a good many willow and poplar trees, and this lower part of the valley is not so bare-looking as the upper. It is also much warmer and damper. The court-yards, or balconies, are here roofed over, not open, as in the houses of

Upper Spiti, indicating a greater fall of rain and snow. Outside some of the upper windows were troughs made of sun-dried mud, containing plants (which turned out to be coriander, of which the seed is a favourite condiment), reminding one of the boxes of mignonette seen in England. The crops here were far advanced, some quite ripe, and in addition to pease, barley, wheat, and mustard, were buckwheat, here called Thôh, and Choone, or Cheche, a kind of very small-grained rice.

The people of Pokh cultivate some land across the Spiti river, to which they have access by a twig suspension bridge. In the evening I saw some sheep brought across this in a curious way, the men tying the sheep up in a blanket, and fastening it across their shoulders (so as to have both hands free to hold on by). As the man advanced with his body bent, the grave face of the sheep peering over his head had a comical effect!

The last thing in the easy-praying line is a little windmill which is seen on the top of several houses here! A decided improvement on the drums and cylinders, as not requiring manual labour.

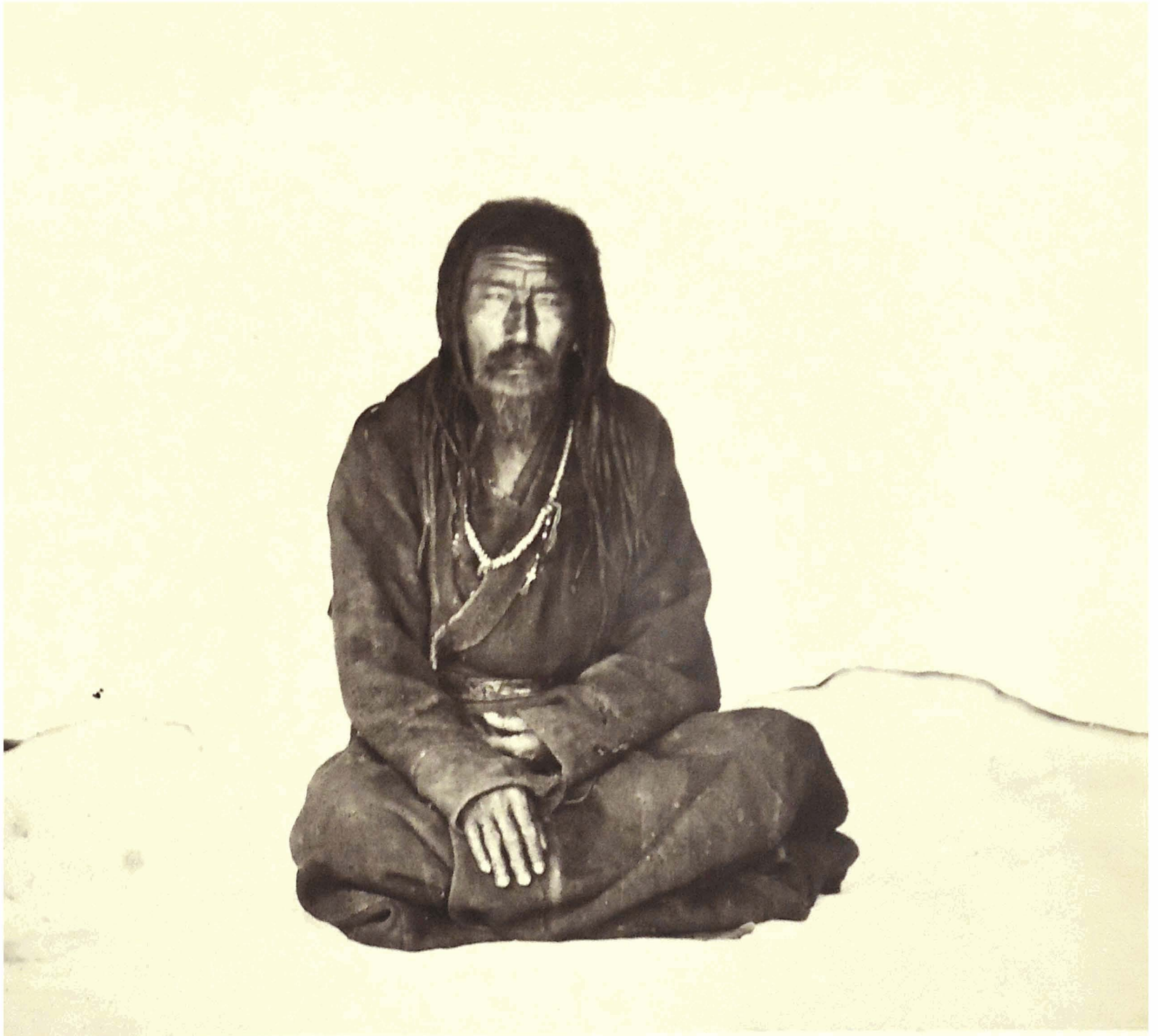
We met here a young Lamba, one of the company just returned from Lhasa, who gave news of Hurree-chund, which led us to expect his early arrival.

Aug. 11th. Halted, as Imam Bux, who had never quite rallied from his illness in the Peen valley, had a sharp touch of rheumatic fever; treated him very successfully with calomel, tartar emetic, and opium, and afterwards quinine.

Here have I been a month in Spiti, and only learnt to-day that the people are universal and inveterate gamblers. To-day the men assembled to carry our loads, being unemployed, divided into groups under the trees and gambled from morning to night. They seem to carry dice about with them, for three or four sets were in use. For a dice box they use their little wooden drinking cups, and a blanket spread on the ground is their green cloth.

Aug. 12th. Marched to Lari, our frontier village, eight miles, six furlongs, fifty-five yards. The Spiti river from Losur to Dhunkur runs in a gravelly bed 200 to 300 yards wide, taking sometimes one side, sometimes the other. Boulders are scarcely ever seen, and swiftly as the stream flows, yet a small boat might safely traverse the entire distance. Below Dhunkur the bed narrows, and is confined between steep banks, whilst the velocity of the water increases greatly, yet still there are no boulders or rocks to endanger a boat.

To-day, for the first time, about half-way between Pokh and Lari, were rapids with large masses of rock showing themselves among the foaming waters. Cunningham states the *average* fall of the Spiti river to be fifty feet in a mile. I do not know what velocity this would produce, but above Dhunkur, where my dog swam across, it must have been eight miles an hour in the middle of the stream. A little further on we came to the village and monastery of Tábo, the latter (unlike the other monasteries in Spiti) situated in a large plain, with an outer wall surrounding a large enclosure, within which are a number of detached buildings. There are also some extra lodging-houses or cells for the monks, a little way up the hill behind the village. We were lionized over the monastery by an old monk. We



31. A MONK OF PEEN.



32. THE CHOTA NONO AND WIFE.

were first taken round a large hall, the flat roof of which was supported on a number of wooden pillars, and open in the centre for light and air, there being no windows. All round the hall are very creditably executed statues of gods and goddesses in clay, painted various colours. Most of them have fair complexioned and pleasing countenances of the European type, only one or two are of terrific aspect and most demoniacal expression.

At the end farthest from and facing the entrance, is a row of the chief deities, in front of which, as usual, are placed brass vessels full of water, and lamps. Behind these again, in a recess, is a statue called the Lord of Light, who deserves his name so little that the old monk proposed to light a candle to render him distinguishable. In another hall, lighted only from the door, was a colossal statue of the "coming Boodha," not less than fifteen feet high. There were some well executed frescoes on the walls of this chamber, quite beyond the powers of any Spiti artist. One of these was a black deity or demon in an attitude of triumph, with an upraised sceptre or thunderbolt in his right hand, and a noosed rope in his left; his necklace and girdle of human skulls strung together, crushing to the earth under his powerfully developed legs and clawed feet, a cow (emblem perhaps of the Hindoos), under which again lay gasping on his back *a white man*.

The Spiti people are familiar with a book of Thibetan prophecies called "Manglusten," in which it is stated that Thibet shall be dreadfully oppressed by the "Tooreka" race. Alluding to this, Mr. Heyde asked the Nono whom he supposed to be meant by the word Tooreka; to which he unhesitatingly replied "the Piling," meaning us Europeans—Piling (*pi*, out, and *ling*, land) "the outlandish" being the term always applied to us in Thibet. Possibly this may have something to do with the jealous exclusion from Chinese Thibet of every European, for free ingress is allowed to the people of Ladak, Spiti, and Koonawur; and possibly also the representation of the white man, crushed and humbled, above alluded to, may refer to some cherished dream of the future. If the prophecy be an old one, it might be supposed they had already seen the fulfilment of it by the Mongols or Turks. The word Tooreka being applied to us, shows a strong unreasoning prejudice on the part of these people. It will be seen however hereafter, that the idea of our invasion of Thibet is not entirely unpopular, and I think my residence in Spiti, short as it has been, will have some effect in diminishing the suspicious dread of the "outer ones," which seems to pervade even our lieges of Spiti.

But to return to our monastery. It is said to have been erected in a single night by supernatural agency, at a period beyond the memory of man; and this was all the reply I could obtain by my inquiries about the date and name of the founder.

Leaving the monastery, we passed a sacred wall or mani, nearly a quarter of a mile long, and surmounted by a vast number of little mud "chortens." Lari is about three miles off. There is a considerable extent of level ground, a great portion of which is irrigated, and bearing fine crops of wheat extending to the river bank, which here is not more than forty or fifty feet high. On the upper side the plain is bounded by a mountain of shingle, rising at an inconceivably steep angle to a height of 1500 feet, and surmounted again by lofty

perpendicular rocks. Towering beyond these on both sides of the valley, are the snow-clad peaks of the great North and South ranges, which here converge towards each other.

Aug. 13th. Halted at Lari. This afternoon a storm of wind blew up the valley, followed an hour after by hail and rain, which, however, only lasted half an hour. The surrounding hills were covered with fresh snow down to about 14,000 feet.

The Nono came up in the afternoon to pay his respects, and a number of villagers accompanied him; so to pass the time I started some games, and found the Spiti men by no means backward. The policemen and some of my servants joined. Several of the Spiti pas* cleared the jumping bar four feet high; and in "putting" a stone, my friend the big Doctor of Lalung, beat us all at his first trial. Duckstone, or Jack's-alive, was played with great gusto, and the merriment rose to a climax when, leap-frog being started, the big Doctor came plump on to the neck of an equally bulky policeman, and both rolled on the ground together.

Aug. 14th. Still halting in anticipation of the arrival of carriage, which for any movement beyond the frontier of Spiti, is by established custom invariably supplied by a quota from each of the five Kothees.

We purpose making only two marches beyond the frontier, through an uninhabited region, to the junction of the Para with the Spiti region, to see the natural bridge of rock over the former.

To-day a Zemindar from Thotso in Thibet, deputed by the head man of the Circle, reached our camp. His mission was to apologize for my messenger being turned back. He said it had been reported that inoculation was going on in Spiti. I sent him back to explain the mistake.

A few locusts made their appearance to-day.

Aug. 15th. Still halting. The Spiti river, like all these mountain streams which draw their daily supply from the snow, is subject to regular fluctuations, being lowest in the early morning and fullest in the afternoon. Down here where the river bed is narrowed to the actual stream of about 150 feet, the difference between flood and ebb is as much as two feet and a-half, which, assuming the velocity of the current at only eight miles an hour, would give *about 5000 cubic feet per second* as the *difference* between the morning and evening discharge. As even at ebb there is a considerable depth of water which is not ascertainable, this calculation assumes the SURFACE velocity as extending to the depth of two feet and a-half.

Whilst halting here I may as well look up the *history* of Spiti, so far as it can be gleaned from Cunningham, Hay, and Csomo de Köros.

The first reference to Spiti which I can find is in Csomo de Köros, who mentions the foundation of Kee or Rareng monastery about the middle of the eleventh century, by the pupil of Pundit Atisha (*vide* p. 29). This Pundit Atisha is known to the Lambas of

* *Pa* means fellow, equivalent to the Indian word *wala*, or our English affix "er."

Koonawur by his other name, Chovo, and four places in Bussahir are said to have been visited by him—viz., Taling, Kainum, Atsirung, and Kola. It may therefore be assumed that the Pundit went from India to Thibet by the route of the Sutlej valley, leaving Spiti to the west. However, his residence at Lhassa, coupled with the fact of a monastery far up the Spiti valley being founded by his pupil, may be accepted as proof that Spiti was then (about 1055 A.D.) under the same government as Thibet; and so when in 1262 A.D. Thibet was conquered by the Emperor Kublai Khan,* Spiti probably shared the same fate.

When the great Tartar Empire fell to pieces, Spiti probably remained attached to Chinese Thibet for some time; but at the commencement of the seventeenth century Spiti seems to have been under the rule of the Gyalpo or Buddhist King of Ladak. This Gyalpo, named Jamya, was, about the year 1603 A.D., defeated and taken prisoner by Ali Meer, the Mohammedan Chief of Balti,† whose capital is Skardo; and in the confusion which followed, it appears that Googé,‡ Spiti and other outlying provinces of the Ladak kingdom revolted. Subsequently Ali Meer restored Ladak to Jamya, and gave him his daughter in marriage, though it is not recorded that Jamya was converted to Mohammedanism. Spiti, however, remained for a time independent. After Jamya's death, his son Singgi, having defeated the Balti Chief (successor of Ali Meer), by whom Ladak was again invaded about 1635 A.D., subsequently reconquered the provinces of Googé and Spiti. King Singgi had three sons—Deldan, Indra, and Tenchog, amongst whom at his death he divided his dominions; and Zanskar and Spiti fell to Tenchog, whilst Indra had Googé, and Deldan Ladak Proper.

This was about 1660 or 1670 A.D. In about 1710 the son of Deldan named Delek, Gyalpo of Ladak, waged war against Googé, and killed the ruler, but not before assistance had been invited from Lhassa. The Lhassans brought an army to assist Googé against Delek, but ended by annexing Googé themselves, and probably Spiti too, for a few years later, about 1720 A.D., we find the ruler of Ladak (Delek) concluding peace with the Lhassans, and receiving the daughter of the Lhassan General in marriage, with *Spiti as her dowry*.

About 1740 A.D., Ladak was again conquered by the Mohammedan Chief of Balti, and it is not improbable that Spiti shared this fate, which, however, was only temporary. When Runjeet Sing, the lion of the Punjab, took possession of Cashmeer, he exacted tribute from Ladak, which, when Moorcroft visited the latter country in 1822, was regularly paid. Spiti paid tribute or revenue to Ladak, which, according to Major Hay, amounted only to 396 rs. in cash, 200 bhars or lacs of grain, some iron (which must have been imported through Koolloo), cloth, and paper. They also paid a small nuzzer or fee to the Rajas of Koolloo and Koonawur. This divided allegiance is a curious feature among the tribes of the Himalayas. It seems to have originated with the pastoral tribes, who graze their flocks in different tracts of country, under different rulers, at different times of the year. Major

* *Vide* Huq on Christianity in Central Asia.

† This province is now included in Ladak, and is under the rule of the Maharaja of Cashmeer.

‡ Googé is now part of Chinese Thibet, and lies to the north of Koonawur and Spiti.

Hay also states that a tribute was paid to China, but from what I have learnt it appears that this payment was merely a contribution to the monastery of Tulung or Tolong in Thibet, where many young monks from Spiti go to study. In 1834 Dhyal Sing, Chief of Kashtwar and Goolab* Sing of Jummoo sent a force of Dogra Rajpoots under Zorawur Sing to invade Ladak. He subdued the province, and appointed a Ladaki of influence named Moru Tadir, who had been in league with him, Governor of the province. Next year, however, Moru Tadir asserted his independence of the Dogras, but was defeated and pursued by them, and made prisoner at Tâbo in Spiti.

In 1841, Zorawur Sing invaded Thibet with Ladaki and Dogra troops. Spiti was taken and Ruheem Khan, "a half-blood Mussulman of Chachot,"† placed in charge, whilst his son-in-law Ghoolam Khan was employed in plundering the monasteries and temples. But in December, 1841, the Chinese from Lhassa met Zorawur Sing and his army, who were already frost-bitten and disorganized from the intense cold. Zorawur was killed, his army defeated, and those who escaped the sword of the Chinese either perished from cold in their flight, or were taken prisoners. Among the latter was the above mentioned Ghoolam Khan, and the fate he met with from the enraged Buddhists is thus recorded by Cunningham. "He was tortured with hot irons, his flesh was picked off in small pieces with pincers, and mangled and bleeding, he was left to learn how slow is the approach of death to a wretch lingering in agony." There cannot be a doubt that this terrible vengeance on the desecrator of their monasteries must have been well-known to the Nono and all the people of Spiti, yet such is their habitual caution, that when I asked how Ghoolam Khan died, they affected to believe he was still alive.

In the spring of 1842 the Chinese invaded Ladak, and laid siege to Lé, the capital, but in a few weeks the Dogras, under Dewan Hurree-chund, advanced and expelled them. The Lhassan Wuzer (or Umbhan) was taken prisoner by stratagem, and gladly obtained his liberty by acceding to the re-establishment of the old boundary between Ladak and Thibet. In 1846, the British Government, fearing lest boundary disputes should arise between Maharaja Goolab Sing and the Chinese, deputed commissioners to "ascertain the ancient boundaries between the two countries, and to lay down the boundary between the British territories and those of Maharaja Goolab Sing." "Immediately after the war," says Cunningham, "I had pointed out that by giving up to Maharaja Goolab Sing the southern dependencies of Ladak, we had actually interposed a rival territory between our own provinces on the Sutlej and the shawl wool districts of Chang Thang." An exchange of territory was made with Goolab Sing, and Spiti was annexed to the British Empire, but was farmed out for the years 1846, 47, and 48, to Mansook Dass, Wuzer of Bussahir, and only taken under direct management of the Assistant Commissioner of Koolloo in 1849.

But to return to my journal. As it is absolutely necessary during long halts to have a

* This Goolab Sing, a Jummooval Rajpoot, was afterwards put in possession of all Cashmeer by Lord Hardinge at the close of the first Sikh campaign.

† See Cunningham. Chachot is a large Mohammedan village in Ladak.

little exercise, and keep oneself in wind, I devised a new method of doing it which proved highly successful. At the back of the village rises to a height of not less than 2000 feet, and at an angle of about forty-five degrees, a hill composed of (or rather covered by) the finest shingle. So I collect as many competitors as I can by the promise of a rupee or a little tobacco, and we climb slowly and laboriously up the loose and treacherous steep for 1200 or 1500 feet, and then at a given word from me all start off down hill as hard as we can go. My big dog Drake, who came up with us, literally howled with vexation at the way he slipped back in the shingle when trying to ascend! The first time we tried was rather a shorter course, and no Spiti men came. I wore a pair of string shoes made in the Sutlej valley, which kept coming off in the shingle, and Chumaroo, my gun-keeper, came in easy winner of a rupee.

When we got back to camp the dog-keeper, who had formerly been in the service of Raja Purtab Chund, chief of the Kangra Rajpoots, and was celebrated for his feats of activity, lamented over this rupee in the most pathetic way, declaring it would have been his if he had started; and so every one seemed to think. Next day he came, as did also some eight or ten Spiti pas, and we had a very large field. The course was somewhat longer, a good 1500 feet. Six Spiti pas made a false start, our shouting only made them go the faster. After going 200 or 300 yards in this way the thighs become almost powerless (*crede experto*), and unless you lean back till your shoulders nearly touch the hill behind you, head over heels you infallibly go; as we soon saw, for the Spiti men, intent on victory, and spurning danger, after going two-thirds of the distance, commenced a series of the most ludicrous summersaults. A Spiti pa, recollect, is *sans culottes*, his long loose coat is unconfined, save at the waist, and his boots with huge feet half full of straw are gartered below the knee, so when he stands on his head, the boots in the air, the skirts of the choga or coat sticking out from the waist like a butterfly's wings, and only bare facts between, the effect is decidedly farcical.

Ten of us were left at the starting post, and when we had done laughing, we made a capital start. The dog man, who was so boastful yesterday, was so frightened at seeing how the Spiti men tumbled, that he never made running at all. My two Guddee servants, who I thought would have done well, stopped after the first hundred yards, and declared their *thighs were broken!* But the honours were pretty fairly divided among the nations represented—a Guddee shepherd first, a Spiti pa second, a Rajpoot policeman third, and an Englishman fourth. The pace was terrific, and we could scarcely stand when we reached the bottom, our limbs trembled so from the exertion. The descent of Mount Vesuvius on the west side, though not so steep, would form a tolerable course for a race of this sort.

Aug. 16th. Sunday. Halted.

Aug. 17th. Marched to Hurling, eight miles, one furlong, fifty-five yards, crossing the Chinese frontier about half-way. Hurling is uninhabited—a mere name and nothing else; there are some caves which afford shelter to travellers. The village of Soomrah in Koonawur, across the river, was passed about three miles from Lari, and was the only agreeable feature in the scenery. Here the people were busily cutting their wheat and barley. There is no

bridge across the Spiti river here, though there is considerable intercourse between Spiti and Koonawur by this route. People cross by a "jhoola," which consists of a rope stretched from side to side with a cradle suspended from it. The passenger sits in the cradle (generally nothing but the bight of a rope), and is pulled across by a guyline. There are some birch forests across the river, but none on our side. During the latter part of the march the valley is very contracted and desolate-looking in the extreme. The dark-coloured juniper bushes, the deep blue slate of the rocks, and coal-like shingle, under the influence of a dreary cloudy day, looked absolutely gloomy. Soon after our arrival at Hurling, my ambassador, Hurree-chund, arrived on his return from Gar. He had described four-fifths of a circle. Leaving Spiti by the Parang Pass, passing through Roopshoo, a province of Ladak, *via* Puga, celebrated for borax and sulphur, to Rongo, in the province of Hanlé (Ladak), where a large stream joins the Indus, up the Indus to Garyarsé, the Garpoon's summer residence—passing Gar Goonsa, the winter capital, where there were only two houses now uninhabited—then back by the direct road, crossing one pass from the valley of the Indus to the valley of the Sutlej, and a second from the valley of the Sutlej into the valley of the Para. This direct route is about 150 miles only. A list of stages is given in Appendix.

I have already mentioned that my chief object in writing to the Garpoon was to induce him, if possible, to meet me on the frontier, with the view to the establishment of a fair, which should promote the advantage of both countries. The letter was wrapped up in a khatak or fine white silk handkerchief, according to the custom of Spiti and Thibet, and enclosed in an ordinary official envelope, and sealed at one end.*

Well, Lord Russell himself never received a more decisive checkmate to his diplomatic efforts than I did! The Garpoon sent it back to me with the seal unbroken, and declined, on the plea of his oath of office, to have any correspondence whatever with the "Piling."

Nevertheless I have reason to believe that the worthy man's curiosity did induce him to open the letter, for the gummed end of the envelope had evidently been tampered with. Hurree-chund stated that at his first interview the letter was allowed to lie where he had placed it as if forgotten, whilst he was dismissed; that four or five hours after he was again summoned and asked why he had left the letter, which he was told to take away, and that he then perceived that it had apparently been ungummed and fastened up again. When Hurree-chund urged on him my invitation to an interview, he drew his hand significantly across his throat and said, "Why do you people want to get the Garpoon executed?" implying that such would be his fate if he communicated in any way with me. It certainly seems strange that Chinese jealousy should confine itself to Europeans. Thibet at least has never been invaded by Europeans, though it has, quite recently by the Cashmeer Rajpoots, and yet the Maharaja of Cashmeer is treated in the most friendly manner, Koonawurrees.

* The contents were explained to Hurree-chund, who, I should observe, had previously been to Gar on trading business, and was acquainted with one of the Garpoons. In the report appended, it will be seen that under the Chinese government in Thibet each high office is filled by two persons.

and Spiti pas, Hindoos, and Mohammedans, (in fact all Asiatics) are freely admitted, whilst every European is rigorously excluded.

Although the independent existence of the kingdoms of Nepaul on the eastern, and of Cashmeer on the western frontier of Thibet ought to be accepted, as substantial proofs of English moderation and forbearance, yet we are suspected of aggressive intentions. This year (1863) the Raja of Koonawur, who usually exchanges presents with the Umbhans (governors) of Lhasa, every three years, sent a special embassy to inform them that the British invasion was to take place at once, and his ambassador was instructed to ask for a thousand rupees' worth of wool for this important intelligence, which, however, he did not get.

A wealthy landowner, the Ponpo, or head man of Chumurti, has been fined several times (only, as he asserts, because he is rich and can pay!) As Hurree-chund passed through Chumurti, this man sent for him in the evening, and in the course of a confidential communication said "When are the English coming to take this country? There has been a constant talk* of roads the last four or five years, and yet they don't come. I will engage to buy 200 yâks and send on every Englishman to Lhasa at my own expense."

Hurree-chund's account of the political state of Thibet confirmed what the old monk from Lhasa had told me at Dhunkur, and will be found in further detail in the Appendix.

Aug. 18th. Marched (eight miles, one furlong, 165 yards) to Kurig, the first Chinese village—or rather to an encamping ground about a mile short of the village, and just above the celebrated bridge of rock.†

The boundary between Spiti and Bhotunt (Chinese Thibet), is the Gyoondoo torrent, which we crossed about four miles from Hurling, and about a quarter of a mile above its junction with the Spiti river, which a few hundred yards further is joined by the Para river, and turns abruptly to the south, flowing through Koonawur to the Sutlej. Our route now lay up the Para valley, abandoning the Spiti, which we had followed so long. The Para or Parang river takes its name from the Parang Pass (or *vice versâ*), on the north side of which its main stream rises, and whence it describes a most circuitous route till it turns the flank of the mighty range it rises in, and meets the waters of the sister stream which rises on the south side of the same pass. About two miles up the Para river are the hot-springs of Chungrazhing; the path we were now following ascended steadily from the Gyoondoo, and we looked down on the Para from a height of 2000 feet; but on our return down the valley we visited the hot-springs. They take their name from the little valley of Chungrazhing across the river in Koonawur. They trickle out of a limestone rock, covered with a bed of black detritus. I had no thermometer, but the temperature of the several basins I could

* This refers to the Simla and Thibet road, designed by Lord Dalhousie, which has been under construction for several years.

† Soon after starting the dogs put up a hare (the first I have seen in these parts), the pace it went up the semi-perpendicular shingle would have left the best greyhounds behind.

reach varied from perhaps a hundred degrees to a hundred and fifty. Another, overhanging the roaring and icy cold Para, was inaccessible. It seemed to be boiling. Two huge boulders projecting out of the river bank have been covered with a fine deposit of sulphate of soda, or lime verging into sulphur, and present the appearance of two vast fungi, of the most delicate pale yellow colour. Close to the sulphur springs we found gypsum in pure white flakes—and a soft white semi-transparent stone which appeared to resemble precisely Italian alabaster.*

We also found here what appeared to be decomposed quartz; it is found in blocks of considerable size, but crumbles easily between the fingers. It is used by the natives for whitewashing their houses, being first baked or roasted, and produces a very brilliant white.

Near Kurig, a party of mutineer Sepoys, who had taken refuge in the hills when defeated by Nicholson at Trimmoo Ghât, between Sealkote and Goordaspoor, were surrounded and captured by the Thotso† villagers in 1857, and made over to Mr. Knox, Assistant Commissioner of Koolloo, who came here with a strong party of police. The chief men of Thotso, viz., the Gopas of Giu, Soomskill, and Chooroop, came to pay their respects this evening. Their visit was of an apologetic nature, as the misrepresentation which had caused Spiti to be put in quarantine had been made by some Thotso people. They said they had been obliged to report that vaccination was going on—in fact they supposed it to be inoculation, which had once been practised in Ladak with very bad results. It is said that small pox has never actually broken out in Thibet, but the Thibetans have seen its ravages in Ladak, and have a wholesome dread of it.

The Gopas stated that they had strict orders not to let any European pass into Thibet, so if I chose to go I must pass over their bodies. The elder brother of the Gopas of Giu, who formerly held the office, was supposed by the Garpoon to be lax in this respect, so a year or two ago, he was seized by the Garpoon's orders and sent to Lhasa, and they do not know whether he is alive or dead.

These Gopas were taller men, and less Tartar-featured, than most of the other Spiti people, yet they must be the same race, for they freely intermingle, and the Nono has a daughter married to a landowner of Giu, which lies six or seven miles N.W. from Rurig. I told the Gopas I had no intention of proceeding further, that I had merely come across the frontier to see the bridge of rock, and should return in a day or two. I made them some small presents in return for the Khataks they presented, and engaged them by a subsidy of twenty-five rupees to improve the road over the Boodhpo Pass.

Aug. 19th. Went down early in the morning to the rock bridge. The geological features here are most singular, and I am almost afraid to venture on describing them. The general formation of the valley seems to be light-coloured limestone, towering up to a great height on both sides, and on the further or south bank extremely steep. The lower portion,

* Specimens of the various minerals found in Spiti have been sent to the Lahore Exhibition.

† Thotso is a township in Thibet immediately adjoining Spiti, and containing several villages.



33. BRIDGE OF ROCK.

through which the torrent has cut its narrow bed, is diversified with strata of black slate, and these two rocks seem to verge into coarse black and white marble.

On the north bank are rocks containing mica, quartz, felspar, and hornblende run mad, now combining to form a light-coloured granite, now stratified into gneiss, anon the mica obtaining a divorce and forming a new connection with the adjoining slate and hornblende, packing themselves into amicable strata. Around and above all is the unending limestone, of a pale greyish pink. It is a mass of this, eighty feet in length, which, becoming detached from the overhanging rocks above, has fallen across the bed of the torrent and formed a natural bridge. I annex two photographs of it, showing the upper and lower portion of this ponderous girder.

Not without scathe did I obtain these pictures. The most desirable site for my camera was on another enormous rock which had fallen from the same overhanging rocks, but a little further up stream, and not being long enough to bridge from bank to bank, stood in the middle of the torrent, which roared and chafed round its base. This rock was about forty-five or fifty feet high, and the only way on to it was by jumping from a part of the bank which projected towards it. This I did, and tried to get hold of my camera, which Chumaroo reached out to me across the chasm, but found it impossible to do so. I now wished to get back, but though the jump down had been easy, the jump back was impossible! Here was a dilemma! I had jumped from A to B, but could not jump from B to A; and my only escape was to jump down from C to D. The absolute length of the jump was not more than eight feet perhaps, but the "take off" was a smooth slippery rock, slanting steeply down, on which it was impossible to get a firm footing. I had to make a standing jump, and failure was instant destruction. However there was nothing else for it, the longer I stood on the edge looking, the more I didn't fancy it, so at last I hardened my heart and jumped. I reached the landing-place all right, but then discovered to my cost that the drop of nine or ten feet on to hard rock was of itself no joke, for I felt as if both my ankles were sprained—in fact I was what a groom calls "foundered." I crawled, with Chumaroo's assistance, down to the torrent and immersed both feet in its icy cold waves, where I resolutely kept them more than half an hour, in spite of the almost agonizing cold-ache. After this I retreated down stream, and got my pictures, but could not get my camera into a position from which the whole of the bridge could be seen at once.

Aug. 20th. Dismissed Huree-chund, who had declared his intention to retrace his steps to Gar, and thence to proceed with a few horses and servants to explore a route to Yarkund through the Eastern Karakorum Mountains. Whilst at Gar he had made secret inquiries with this object in view, and had lit on an old hunter who had once traversed these mountains in pursuit of wild yâks or bisons, and who promised to go with him. It was arranged that they should give out they were going on a hunting expedition, and Hurree-chund had purchased some stout horses and left them with his servants at Tashigong. I gave him from the funds placed at my disposal by Government 300 rs. to help him to set himself up in necessaries; but it was clearly understood that he went entirely at his own

risk and on his own responsibility, and not in any way as an accredited agent of the British Government.

After a second interview with the Gopas, we started on our return up the Spiti valley. I had hitherto preferred walking the marches, though I hired a pony, at sixpence per diem, which was led after me, more for the look of the thing than anything else; but now I was a cripple and was constrained to trust myself on a pony—"a mare of the desert" indeed! a "gallant grey" with a vengeance! the most unmitigated brute I ever bestrode. She was a stout, good-looking beast, and took my eye at first; but—for stopping every ten yards up-hill to blow,—for lifting both fore legs together and letting them down with a plump when descending a rocky path,—for always shying at the dogs in a dangerous place (and nowhere else!),—for going closer to the edge of a precipice than any other brute, and letting her hind legs slip over the path when crossing a particularly steep bed of shingle (sending your heart into your mouth with a jerk!),—for squeezing close up to the inside of the path if there happened to be a projecting rock to catch your knee,—for always choosing the wrong path if there were a choice, and when there was apparently no option, coolly bolting up or down a precipitous bank for a particular bit of vegetation which took her fancy, keeping the smallest possible speck of both reverted eyes on you all the time, in a way that became at last quite insupportable—in short, for aggravating a man in every conceivable and in every inconceivable way, I would back her against any female in creation.

When penning this *in memoriam* I had scarcely recovered from the horrible sensation experienced this day when coming down a very steep and rocky piece of road, overhanging a hideous precipice more than 2000 feet deep (a place where but for my sprained ankles nothing would have induced me to ride), this wretched brute caught sight of some tempting morsel, *growing in the side of the precipice below the road*, and actually poised herself on one fore leg, with the other bent up beneath her, to try and reach her nose over the edge of the path and down to the coveted shrub. The least movement on my part might have thrown her off her balance; so there I had to sit for seconds motionless and helpless!

Having now reached the furthest point of my travels, I shall devote a chapter to describing the manners of the Spiti people, and the productions of the country.

I suppose an Englishman is less able to fraternize with a strange people, and to adopt their habits for a time, than the native of almost any other country in the world. Take, for instance, Count Louis de Thurheim already mentioned (p. 21). He travelled without tent, with only one servant, lodged in any empty house he could get, and eat of such things as he could purchase at each place. If he shall write his experiences and observations of Spiti, I have no doubt they will be far more minute and far less superficial than mine. He saw the people *chez eux*, which I could not. However, Mr. Heyde mixed freely with them, and as he thoroughly understood their language, spoke it fluently, and freely communicated what he heard or observed, my English unsociability was of less consequence.

A general physical description of the Spiti province has already been given, and I pass on to the natural productions, manufactures, imports, and exports.

The domestic animals are, first, the "yâk" (*Bos grunniens*), more commonly called "chooroo." When thorough-bred he is a noble-looking beast, though with a very fierce aspect. He stands about fifteen hands high at the withers, and his girth is enormous; his legs are very short and powerful. He carries his head low, and is covered with long shaggy hair, which, especially about the stifle and hock joints assumes the appearance of wool. He is extremely sure-footed, and climbs the most precipitous places in search of food. In Spiti the yâk is crossed in every possible degree with the common cow, and distinct names are given to the half caste, quadroon, &c. The Spiti man uses the yâk, both pure and half-bred, for carrying loads, chiefly in bringing fuel and fodder from the mountains to store up for winter. It is not often ridden, the pace being slow; but in crossing rivers he is highly appreciated. The female is a good milker. The hair is twisted into very strong ropes, and the tail, when carefully cleaned and combed out, produces those inimitable fly-flappers called "chowries," so essential to Oriental luxury. The tail, however, is only available after death, when the skin is also tanned, after a rude fashion, and converted into boots, bridles, &c. A good many half-bred yâks are sent into Thibet to be sold at the September fair. The animal of next importance is the sheep, but the breed is inferior, and the best sheep are imported from Thibet. The numbers too are very limited from the difficulty of laying up winter provender.

The shawl-goat next demands mention. The number of these also is extremely limited, as provender for the four or five months that snow lies on the ground, has to be stored up in the summer. The wool too is inferior to that of the shawl-goats in Thibet, *i. e.* of much shorter staple; the reason of which I take to be the different mode of treatment consequent on the difference of climate. In the plains of Thibet very little snow falls, and the goats are able to get pasture throughout the winter by scraping away with their feet the thin coating of snow. Hence they are never taken up, even in the severest weather, and Nature, though not "tempering the wind" to them, yet, with the same stern benevolence which she displays to all wild animals in this region, gives them, underneath their goat's hair, the long soft wool known in Hindoostan as pushm,* in Cashmeer as puhm, and in Thibet as lèna.

In Spiti, where the snow falls more abundantly, attracted doubtless by the mighty mountains which encircle it, no tame animal can find food for itself in winter, but all are taken up and fed.

The ponies of Spiti have attained a great reputation at Simla and among the Himalayan chiefs. They are extremely sure-footed, but under-sized and slow. Those from Chumurthi, a few marches into Thibet, are finer. They are generally unshod, but shoes are put on for a long journey. The horses are all castrated, and are extremely quiet and docile, affording an agreeable contrast to the neighing, screaming, kicking, and fighting which commences on the Indian side of the snowy range the moment a few ponies get together.

* The pushm of the wild sheep and ibex, of a delicate gray colour, is even finer and softer than that of the shawl-goat.

I saw but few dogs in Spiti, and those very inferior brutes, and no cats.

The wild animals are tailless rats, or marmots, weasels, a few foxes and hares, the ordinary wild sheep, or "burrall," here called nabo, and the ibex or tringól, here called kin. A male ibex with handsome horns is called "kinchin." The *ovis ammon* ("nyâm"), though occasionally met with, is not considered a native of Spiti.

Leopards have been seen, but very rarely. The Nono has a stuffed specimen; it is a very pale colour, and would be called a "white" or "snow" leopard.

The birds we met were sparrows, larks, and pigeons (both pale and dark blue), very numerous; robins, swallows, doves, and hoopoes, more rare; sparrow-hawks, eagles, and red-legged partridge ("chikore"), occasional; snow pheasant or "goolind" (here called "gougmo") everywhere.

The agricultural produce consists of barley, which grows throughout Spiti, and is the chief article of food, as well as of drink in the shape of "châng;" wheat, which is a very fine full-grained species, and grows in hexagonal form, six tiers of grain growing on each ear; mustard, used exclusively for oil; peas, buckwheat (thoh), and a kind of bastard rice called "cheeche," which grows also in the Koolloo and Chumba hills, and requires less irrigation than ordinary rice. Of these only barley and peas will grow in the upper part of the valley, where the elevation of the cultivated land is from 12,000 to 14,000 feet. At Kliebar, about the centre of the valley, wheat and mustard are first seen. Buckwheat, which is found scantily in the Peen valley, and Cheeche, will only flourish below Pokh.

The mineral products of Spiti hitherto discovered are insignificant. The existence of copper and antimony is suspected, and in the Chundra valley, near the Chota Shigri, an inferior kind of antimony has been found, and the vein was worked for some time by Major Hay, formerly Assistant Commissioner in Koolloo, but it was not remunerative. Limestone is found in every shape, but is never burned, owing to the scarcity of fuel. Gypsum roasted is used for whitewash, and some alkaline earths are used as mordants in dyeing. Slates, though abundant and good, are not used, probably because longer rafters are needed for a pent roof than for a flat one.

The manufactures of Spiti are not very extensive; but considering the scantiness of the population, and the inclemency of the climate, they are very creditable. As a rule, they are for home consumption only.

Woollen yarn is spun both by men and women, a small spindle being used, which is carried about everywhere, and every leisure moment employed, as Welsh women do with their knitting. When spinning at home, the lower end of the spindle is rested in a little wooden dish, as shown in plate 19. No distaff is used, a handful of wool being kept in the breast of the coat. This yarn is woven into excellent cloth, of which they make their clothes. It is fulled or felted in some way which I did not ascertain, and fluffed up like the cloth used for pea-jackets. A small quantity of this cloth finds its way to the Rampoor fair in the Sutlej valley, and has obtained a great celebrity in the hills. Its excellence is owing, I believe, in great measure to the custom of shearing the sheep only once in the year, which

prevails both in Spiti and Thibet, whereas in Kangra proper, and all the south side of the Himalayas, the wool is shorn three and even four times a year.

A second kind of cloth is woven in small quantities for export to Gurtokh, closer and more compact, but not so soft as the above.

They use several dyes, chiefly red and yellow. The red dye employed is madder, imported *via* Kangra, and for yellow an indigenous root called "nyâloo." Before applying these dyes the cloth is steeped in a mordant, for which is used a kind of earth, probably lime, in some form or other, and which is everywhere found in Spiti.

The skins of cows, yâks, and sheep are all utilized. The two former are tanned and used for making boots, bridles, &c. The sheepskins are cured with the wool, and form a much-prized article of winter wear.

The iron-workers of Spiti are justly celebrated. Their buckles and bits are neat and strong, and their tobacco-pipes are of a very tasteful shape, somewhat like the North American Indian's calumet, with a long tapering stem, often fluted very prettily, and a smallish bowl. The Nono is holding one in plate 22, and every Spiti man carries one in his waist-band.

A few small wooden vessels are made in the lower part of the valley, but the want of wood prevents progress in this branch of art.

Lastly, paper is manufactured from a kind of grass which grows wild in the Peen valley, and near Mâné, below Dhunkur.

Spiti imports madder and tobacco from the Punjab; sheep's wool and salt, turquoises and amber from Thibet; water-pails and other wooden vessels from Koonawur (to which iron hoops are generally affixed by the Spiti blacksmiths); soda (koollee), and yeast (phav) from Ladak; and iron from Munde, *via* Koolloo and Rampoor.

The exports are, a considerable quantity of grain (chiefly wheat), some half-bred yâks, and a little woollen cloth to Thibet; some wheat to Koonawur; and a good number of ponies, some thick cloth and yâks' tails (chowrees) to Koolloo and Rampoor.

The following will give an idea of the difficulty of arriving at *facts* connected with Spiti. I am beginning to think there is a method in these people's madness; that knowing how well-off they are, with an almost nominal taxation, they are suspicious of any attempts to inquire into their condition.

The late Mr. George Barnes, Settlement Officer of Kangra District, writing in 1850, says of Spiti, "The produce of the country is not sufficient to support the population, much less to defray a land-tax." Again he says, "The valley of the Sutlej supplies the additional demands in Spiti."


Major Hay (for many years in charge of Koolloo and Spiti), in his printed report estimates the whole cultivated area at 2554 bhars or lacs, and the entire produce at 20,667 bhars of grain.

Now two facts are notorious and palpable,—1st, that the Spiti people are well fed and use up a great deal of grain in making châng; 2nd, that they export but *do not* import

grain. This latter assertion, opposed as it is to Mr. Barnes and Major Hay, requires to be supported. I may therefore state the grounds on which I make it. First, when at Dhunkur, we came to the knowledge of a considerable sale of grain for export to the *upper valley of the Sutlej* (Koonawur). This was certainly the produce of Spiti, and the sale was effected scarcely two months before this year's harvest would be cut, showing how well the supply lasts.

Koonawur requires grain every year, and it is utterly improbable that grain from the "valley of the Sutlej" would be carried across a lofty and difficult pass into Spiti only to be re-exported. Secondly, the export of grain to Thibet was accidentally revealed by the Spiti people themselves. When at Pokh I wished to weigh a bhar of grain, and found it only 17lbs. 4oz. Now Cunningham calls the bhar 32lbs., and Major Hay 24lbs. (This is the correct weight). So I requested an explanation. It was *then* stated that the Pokh measure was a special one, *only used on the frontier in selling grain to the Thibetans*, or Bhotantees as they are called. Again, when my messengers were turned back from the frontier village of Thibet the Spiti people expressed an amount of indignation I could not at first account for, and finished with a threat, which Mr. Heyde overheard, that they too would interdict communication and starve the Bhotantees. This expression was brought up against them and explanation asked, and they owned at last to having a *small* surplus produce, which they barter in Koonawur for wooden pails, and in Thibet for salt and sheep's wool. The amount of grain thus exported was subsequently estimated by the Nono (and most likely under-estimated) at 2000 bhars or sheep loads—a sheep load being about 24lbs. The word bhar means a load. Now it is very likely that the condition of Spiti (which had then but recently come under British rule) may have considerably improved since 1850; but still there appears a strong disposition of the Spiti people to withhold information.

MANNERS AND HABITS.

HE dress worn by the Spiti folks has already been described. They take three meals in the day. First, in the morning hot gruel, made from parched barley-meal, and called "pholoo." A bit of meat is added if they have it. Secondly, about mid-day a huge lump of "suttoo," or parched barley-meal, kneaded into a tough dough, which is washed down with "châng," buttermilk or water, as the case may be. This seems a most uncomfortable meal in every respect. It is eaten in the fields or on the road, or wherever a man happens to be, the mass of dough being carried about in the breast of the coat (next the skin of course, as no undergarment is worn) until

dinner-time, and then—shade of Abernethy!—think of having to digest it. The evening meal is gruel, as in the morning.

Everybody is always ready to drink “châng” or tea. The latter is prepared as follows: Put your tea into a pipkin with a little cold water and some soda, boil for some time; add a sufficient quantity of hot water, then take your tea churn, put some butter and milk therein, pour on your hot tea, churn it well up, and serve up with a froth on.

The only tea hitherto known in Spiti is the coarse brick tea from China. I distributed a few packets of the teas made in the Government manufactory at Holta (near Kangra) which were duly appreciated. If a coarse tea could be sent up to Spiti at a low price, say about eight annas (one shilling) per pound, it would probably find its way all over Thibet and Ladak; and certainly our hill produce ought to supersede Chinese tea in Cashmeer, where the Mohammedan population are extremely fond of the beverage. This, however, is another monopoly of the Maharaja, who gets his supply annually from Lhasa.

In Spiti the men plough the fields, using generally half-bred yâks for draught. They carry loads conjointly with the women, conduct exclusively all transactions of buying, selling, or barter, and distant expeditions for collecting fire-wood, &c. They are very fond of smoking, drinking, horse-racing, and gambling with dice, which latter amusement they will continue from morning till night, if unemployed.

The women weed and irrigate the fields, help to carry loads, cook the meals, brew the châng and help to drink it, weave the cloth, and make themselves generally useful. They don't smoke, don't gamble, and don't go to horse-races, but form a procession outside the village to meet the men on their return, and deck the victors with garlands.

The following case in court bears upon their domestic habits. A villager of Pokh sued for possession and custody of his wife, who he asserted had gone to live with her father instead of staying at home and working. The woman replied that neither did complainant stay at home, but went to Mâné, where he intrigued with another woman, and “what could she do at home by herself?” The husband allowed that he certainly did have to do with a woman at Mâné, but that was nothing to the point—it was the custom. The wife said she would live with her husband if he gave up the Mâné rival. The husband (admonished by the court) agreed to do so, but at the same time thought it very hard, as everybody paid attention to some one besides his wife, and even his wife's father did so!


Lax as may be the state of morals among the Spiti Buddhists, it is not because the founders of that religion could not appreciate virtue. The following translation from a Thibetan work is found in the Appendix to Csono de Köros' Grammar describing the wants of a young man in search of a wife. The said young man being no other than the great “Shakya Mõoni,” who subsequently got the name of Buddha. “No ordinary woman is suitable to my tastes and habits; none who is incorrect in her behaviour, who has bad qualities or who does not speak the truth: but she alone will be pleasing and fit for me who, exhilarating my mind, is chaste, young, of good complexion, and of a pure family and descent.” And then after a long list of other good qualities, the young man winds up with—

“If there be found any girl with the virtues I have described, let her be given to me in marriage.” Strange to say, he seems to have found exactly what he wanted, for we hear afterwards of his bride giving very sensible reasons for not hiding her face with a veil. “For such as have restrained their body, have suppressed the several defects of it, have refrained their speech, and never used a deceitful language, and having subdued the flesh, are held in restraint by a pure conscience, for such to what purpose is the veiling of the face?” “They that have a cunning heart, are impudent and shameless, and having not the required qualities, do not speak the truth, though they should cover their body even with a thousand clothes, they would go about in the world more naked than the unclothed.” Her father-in-law, who overhears this expression of her sentiments, is so pleased with them, and altogether with the satisfactory match his son has made, that he exclaims—“The union of two such pure persons is like the mingling of butter and ghee.”*

Music and dancing take a prominent part in all their entertainments. Music is of two kinds, sacred and secular. In the former the monks use the cymbals, a large drum, a huge brass trumpet, and other instruments, as shown in plates Nos. 27 and 28, and the sounds are slow, deep and solemn. Secular music is performed exclusively by persons of the musician caste; the chief instrument resembles a flageolet, which in one instance was plated with silver and studded with small turquoises. They perform with equal ease on foot or horseback, and the tunes are quick and lively.

Both sexes dance, but separately. The men dance singly, chanting “Anee asee too, tuss tuss tuss tuss,” sometimes joining hands. The dance begins with slow gliding pacing movements, and gradually quickening ends with a rapid and violent stamping. The steps of the women are much the same, but they are all interlaced with one another, one arm being round the right-hand neighbour’s waist, and the other on the left-hand neighbour’s shoulder.

MEDICINE AND SURGERY.

URING the two months I was in Spiti I never saw or heard of a sick person (my servant who was sick was a foreigner), nor a crippled nor deformed person; and no one died, except the poor woman who was drowned. Skin diseases are said to appear sometimes, and something in the throat which sounds like diphtheria, of which however, as no case occurred, I could only judge from the account given and the instruments used to operate on it. The malady is described as a swelling or excrescence upon or about the uvula, causing a difficulty in breathing. The instruments used are, first, a small iron rod

* Ghee is butter clarified by melting down, and resembles lard.

with a hook at the end, with which the part is seized and securely held; and, secondly, a lancet like a chisel at the end of another iron rod, about six inches in length, wherewith the diseased part is cut away.

The only case of unsoundness that came under my observation was on my return up the valley, when I saw a man limping along. I stopped and inquired the cause, and he said he had been kicked by a pony. "Yes!" screamed an old woman; "and he is my son, and it was his turn to carry some of your luggage, and now his father will have to go in his place, and mind you give the old man a light load." Notwithstanding the apparent healthiness, there are four or five doctors in Spiti. They practice on cattle as well as on human patients, and do a little farming besides.

RELIGION, ETC.



DON'T know whether all Buddhists resemble those of Spiti, but here certainly the utmost laxity of principle and licentiousness in practice are combined with an overwhelming parade of religion. Everybody, no matter how he is occupied, incessantly repeats the invocation—"Om! Mané pudmé Om!" Persons of a little extra pretension to respectability, as the Nono and his servants, always carry about on their backs a bundle of sacred books; and some of them have constantly in their hand a prayer wheel or whirligig, which consists of a cylindrical box, from three to four inches long, by two to three in diameter, generally of copper filled with rolls of paper on which prayers are written, and revolving on a spindle or handle eight inches long. A circular motion is given to the cylinder by a movement of the wrist, assisted by a small weight fastened to it by a string, and which flies round. Besides all this, every private house and every monastery has a number of flags with prayers written on them, and as these wave in the wind the prayers are supposed to be efficacious. Large drums or cylinders are placed near the entrance of monasteries, and as a person passes in, he gives a good sharp twist to one or more of these, which goes on revolving prayers for ever so long; and in some places the prayer cylinders are made to revolve by little windmills. At the entrance to every village, and generally on the top of any pass or near any remarkable precipice, long low walls of dry stone, from eight to twelve feet broad, are erected, and covered at top with pieces of slate on which the name, or rather the favourite invocation of the deity, "Om! Mané pudmé Om!" is rudely carved in Thibetan characters. One of these heaps is called "Mané." They are always placed in the middle of the road, a path running on each side, and all orthodox persons take the alternate path going and coming, so as always to have the Mané on their right hand. The dissenters, called "Ponpas," however, do just the contrary,

keeping the Mane on their left hand, and so are very naturally held in the utmost contempt by the orthodox.

Little shrines, called "chortens," dedicated to some local deity, to the "five elements," or containing sacred relics of "Buddha," are scattered throughout the fields, and outside every village, in great numbers.

When a priest of any position or reputation visits a place, the whole population turns out and forms a double row, down which he passes, invoking blessings by laying his hands on each reverently-bent head.

The originally pure and simple religion of Buddha is overlaid with a mass of superstition and gross idolatry. It would seem that as soon as a monotheistical people begin to make images representing their deity, they immediately fall into polytheism. The man of genius, perhaps, who designs a new image, merely intends to represent an especial act or attribute of the one deity; but the vulgar soon accord a worship to the individual idol, and in Spiti little is left of the original Buddhism except the name. The actual worship is addressed to benevolent sylvan gods and goddesses, and to malevolent demons. The doctrine of transmigration of the soul is one of the leading features of the Buddhist religion, and the precept, "Thou shalt not kill any living creature," which naturally follows upon it, is utterly unadapted to these bleak countries, where the winter has all the severity of the Arctic regions, and animal food is necessary to sustain human existence. In fact, during the long winter Spiti people do, to a great extent, subsist upon the flesh of sheep and yaks. They acknowledge that it is very wicked to kill these animals, and admit that they will have to undergo future punishment for doing so; but still they do it. It must be rather demoralizing to be unable to get a good dinner without sending the spirit of perhaps a deceased parent to wander forth in the vast universe in search of a new home.

When a person dies, the Lambas (if it be made worth their while) perform a series of chants and invocations over the dead body; but these are really advice and admonitions to the departed spirit, which is supposed still to be lingering near, regretting its former abode, and even wishing to re-enter it. A common address to the houseless soul is this—"Do not trouble yourself, you cannot re-enter it (meaning the dead body); in summer it quickly becomes corrupt, in winter it freezes and is too cold and hard for you." The dead body is disposed of in various ways, being sometimes burnt, sometimes thrown into the river, sometimes cut into small pieces and buried, according to the dictum of the monks. Poor folks' bodies are disposed of very summarily, whilst those of wealthy persons lie in state for several days.

At the birth of a child, if the father is rich, the Lambas and musicians are assembled, and the infant is named amidst ceremonious rejoicings, whilst no heed is taken of the arrival of a poor man's child; it is called the baby, or the boy, or the girl, until it is perhaps eight or nine years old, when it gets a name given to it anyhow.

The wedding ceremonies are much the same as those of Ladak (*vide* Cunningham); but the observance of those ceremonies depends on the means of the parties. In all classes,



34. THE NONO, WIFE, AND GRANDAUGHTER.

however, it is essential that there be a "perâk" of turquoises for the bride, which dowry her parents are expected to provide. When the bride is taken to her husband's house, a special form of invocation is used to drive away any demon who might be following her from her former home.

Generally speaking the ceremonies and religious rites of the Spiti folks are the same as those of the Buddhists of Ladak and Thibet, modified by the isolated position and scanty population of Spiti, and by the extreme simplicity of the people, to whom luxury is unknown. The perusal of Cunningham's work on Ladak will amply repay any one who wishes for information on the subjects into which I can but very superficially enter.

I will conclude this chapter with a translation* of some Buddhist moral precepts, showing that the founder of their religion was not wanting in purity and elevation of thought.

1. No vice is to be committed. Virtue must perfectly be practised. Subdue entirely your thoughts. This is the doctrine of Buddha.

2. Whoever has lived a pure life shall be free from transmigration, and shall put an end to all his miseries.

3. Whatever is displeasing to yourself, never do it to another.

4. Whatever happiness is in the world, it has all arisen from a wish for the welfare of others; and whatever misery is in the world, it has all arisen from a wish for our own welfare.

To return to my journal. We retraced our steps up the Spiti valley, and on the 22nd reached Dhunkur, where I drew out a code of instructions to guide the Nono in all matters connected with police, justice, and the internal economy of Spiti, prescribing certain periodical returns of the simplest nature to be prepared by him and submitted through the Assistant Commissioner of Koolloo. If Greece or Mexico require a Constitution on the soundest and most intelligible principles, I should be happy to let them have a copy of the laws of Spiti.

On the 25th we marched to Kuling, the Nono's residence, on the right bank of the Spiti, which we forded without difficulty, as it now contains considerably less water than it had in July.

Here the Nono has a very nice compact little estate, with two good houses and plenty of out-buildings on it. The Nono himself lives in the smaller of the two houses, the larger one, together with the management of the estate, having been made over to the eldest son, in accordance with the Spiti custom, already mentioned.

Mr. Heyde left me this morning, being anxious to return to Juggutsookh as soon as possible.

When the sun had set behind the mountains, I asked the Nono to sit for his portrait, with his wife and unmarried daughter, and got the annexed picture.

* Copied from Csomo de Körös' Grammar of the Thibetan language.

Anything more inane and helpless than the old gentleman's face on this occasion it is impossible to conceive, and Sir Robert Montgomery, when he saw it, selected it to send over to our energetic (and rather exacting) Judicial Commissioner, as a picture of the man recommended by me to carry out the Civil and Penal Codes in Spiti.

When I had finished the picture, I invited the little girl to come to my tent with the Nono's youngest son (a Lâmba, of course) to receive a present I intended for them. "Oh," said the Nono, "I will send a bigger one," and a great bouncing girl of eighteen or twenty made her appearance; and it then came out the little girl in the picture was not the daughter, but a grand-daughter, the former having pretended to be bashful on the occasion. The bashfulness, however, was quite over now, and she came down with her brother to my tent, where I selected a looking-glass, an ivory comb, and a pair of scissors for her, the same for her mother, and some knives and other little articles for the Lâmba brother and for the Nono, with all of which they were greatly delighted. I asked the young lady why she did not get married, to which very rude question she replied, "Because I am afraid." However, I believe the real fact was that the Nono was not prepared with a *pèrâk* for her, without which of course she could not be married. The old gentleman groaned over the expense he had been put to in marrying his three other daughters; and I found he was on the look out for turquoises to make a *pèrâk* for this girl, by the same token that it greatly increased my difficulties in getting some; and I was only able to secure a most inferior *pèrâk* for the Lahore Exhibition, at a cost of more than eighty rupees (£8).

Next morning this young lady consented to sit for her portrait, which is here shown.

On the 27th I marched to Pângmo, passing the villages of Rurig and Sumling. On my way up I made a collection of articles manufactured or produced in Spiti, including two *yâks*, all of which were subsequently forwarded to Lahore. I also purchased for 19 rs. and 20 rs. (about £2 each) a bull and a cow *yâk* on my own account, which I left at Dhurmsala in charge of my friend Mr. Shaw, for breeding experiments.

In the upper part of the valley, and especially on the right bank, there is a good deal of level land lying waste for want of water, which could be obtained without much difficulty, at some little expense, from a neighbouring torrent.

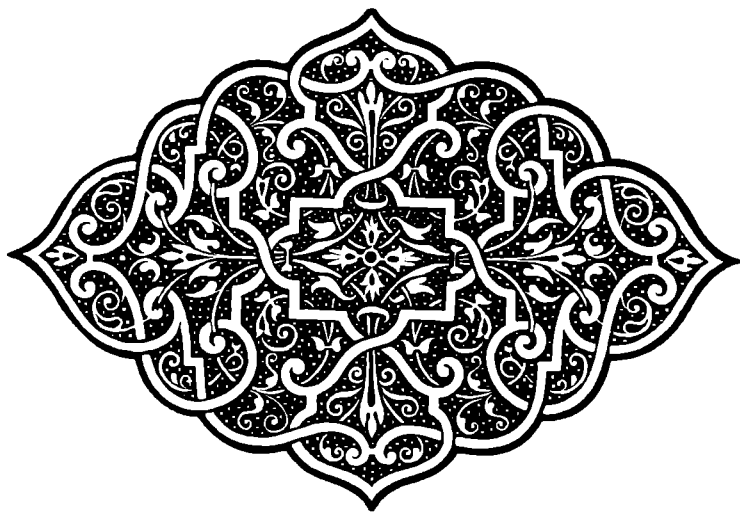
28th. Marched to Losur, crossing the Spiti river twice, first from right to left bank, near Khiotto, and then back to the right bank opposite Losur. At this latter place my votive suspension bridge came into play, and was highly appreciated; for the river, though now easily fordable in the morning, is still impassable in the evening.

I must now conclude my journal, which will have fully answered its object if it helps to open up the highway to Central Asia. I must not omit to say how admirably the climate seems adapted to reinvigorate and restore health to those who have suffered from liver, dysentery, and other complaints of a tropical country. More specially to persons whose health suffers during the heavy periodical rains, a two or three months' residence in Spiti



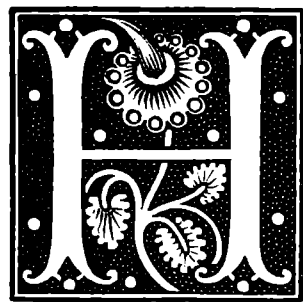
35. THE NONO, WIFE, AND DAUGHTER.

would be invaluable, for the air is always pure and bracing, and even when the rains are heaviest to the south of the mountain chain which bounds it, nothing but a slight passing shower ever reaches Spiti. The thermometer in July and August never went above 98° in the sun, nor at sunrise below 38° . At sunset it is now 50° . A few minutes before sunrise on the first of September it was down to 32° . When a railway, or even a good carriage-road, runs to Sooltanpoor, Koolloo, I prophesy that Spiti will soon become a favourite sanatorium. As it is, an easy pony-road runs through Spiti to Gurtokh in Thibet, where, with sufficient encouragement to the Tartars, and diplomatic negotiations with the Chinese, the shawl-wool of Yarkund might be brought, and our shawl weavers in India, perhaps even the looms of Manchester and Glasgow, be enabled to compete with the far-famed, but over-taxed and oppressed artizans of Cashmeer.



APPENDIX.

FROM THE DEPUTY-COMMISSIONER OF KANGRA, TO THE
SECRETARY TO GOVERNMENT PUNJAB, DATED
DHURMSALA, SEPTEMBER 18, 1863.



HAVING recently returned from a trip through the province of Spiti to the Chinese frontier, I have the honour to lay before His Honour the Lieutenant-Governor, such information as I was able to obtain regarding the shawl-wool trade, and the state of our commercial relations generally with Central Asia.

Practically speaking, there have hitherto existed only two routes by which shawl-wool reaches our territories at all, viz., through Ladak and Lahoul into Koolloo to Noorpoor, and through Koonawur, *via* Rampoor. These roads have also been the chief outlets for the limited traffic carried on with Yarkund and other places to the north of Ladak and Chinese Thibet, from the eastern Punjab.

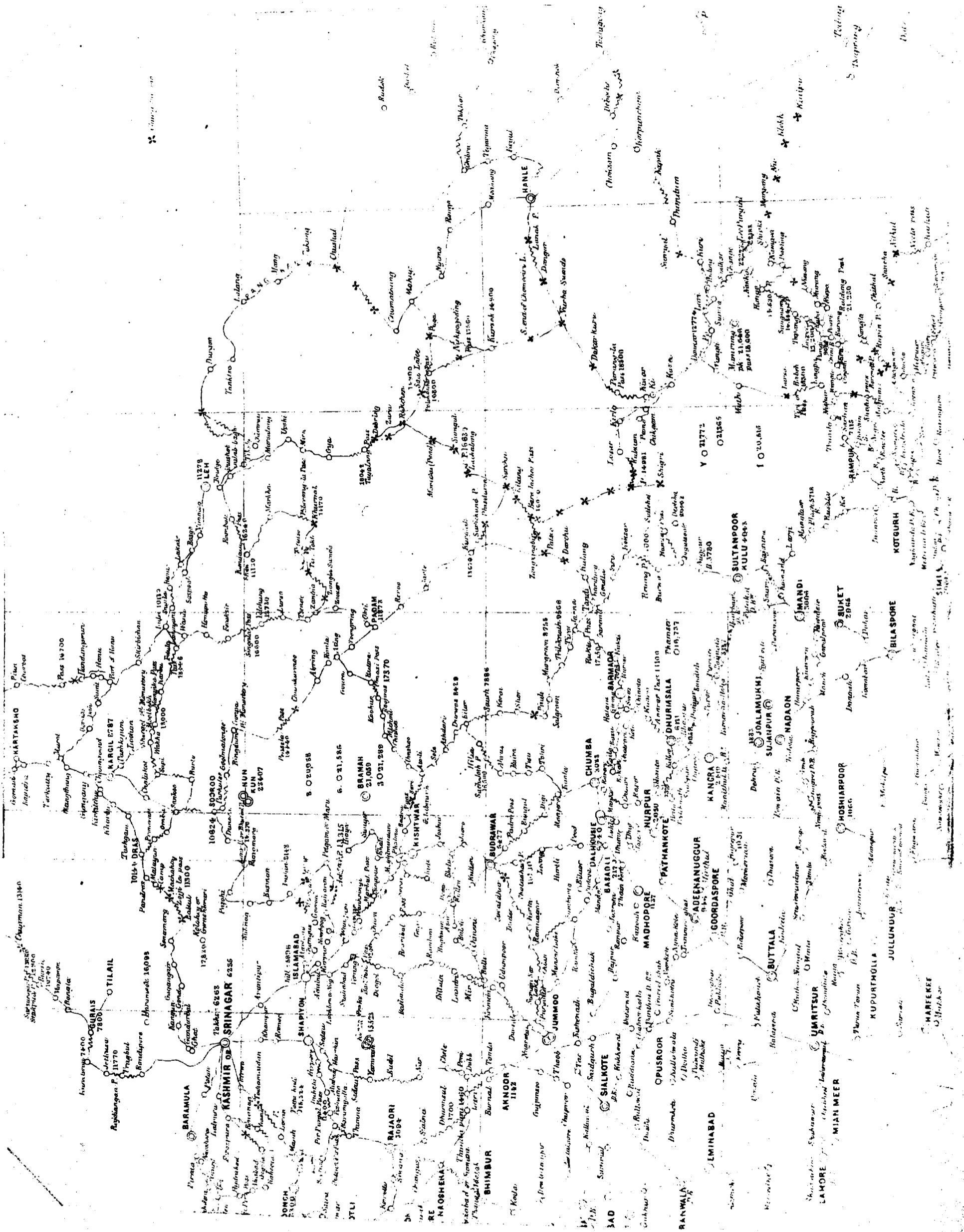
These routes have already been minutely described in Mr. Davies' report. The former requires several bridges over rivers and torrents between Noorpoor and Byjnath (at the head of the Kangra valley), and some slight improvement of steep inclines in the Mundee territory. With these exceptions, the road will be in excellent order as far as Lé in Ladak, when the road over the Rotâng Pass, and the bridge over the Chundra river at Koksor, have been completed (as they will be in a month or so) by Mr. Elwes.

The second route has been improved, as far as the bridge over the Sutlej at Wangto, by the Pioneers under Captain Chalmers.

The former of these routes, however, lies through the Maharaja of Cashmeer's territory of Ladak (as well as through Mundee, in which there are no transit duties), and the latter through the Raja of Bussahir's territory; and, for these reasons, the route I have recently travelled appears preferable to either, as our Spiti frontier marches with Chinese Thibet, no foreign territory intervening.

In an Appendix to this Report will be found a detail of this route, the greater part of which was carefully measured with a chain.

The road into Spiti leaves the Ladak road about a mile beyond Juggutsookh, two marches from Sooltanpoor, in Koolloo. From Juggutsookh to Losur, at the head of the Spiti valley, is five marches, the four intervening halting places being uninhabited, but in all



Chayman 1340
MARTAKHO
Pas 14700
MARGIL 1787
DRAS
KASHMIR OF SRINAGAR 6256
SHAPIYON
RAJAORI 3084
AKNOR 1182
SIALKOTE
OPUSROOR
MADHOPOR 152
PATANKOTE
MURPUR
DHURIASALA
CHUMBA
BARMAROR
SULTANPOOR KULU 4043
JUALAMUKMI
SUJANPUR
NADAON
MANDI
BUKET 2962
BILASPORE
HOSHARPUR
JULLUNDUR
KUPURTHULLA
MAREKKE
MIAN MEER
LAMORE
UMRITSUR
BUTTALA
GADENANUGUR
GOORDASPORE
MANGRA
MADHOPOR 152
MURPUR
DHURIASALA
CHUMBA
BARMAROR
SULTANPOOR KULU 4043
JUALAMUKMI
SUJANPUR
NADAON
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HOSHARPUR
JULLUNDUR
KUPURTHULLA
MAREKKE
MIAN MEER
LAMORE
UMRITSUR
BUTTALA
GADENANUGUR
GOORDASPORE
MANGRA

Date

Scale

of them there is plenty of grass for cattle, and at one only (Footeh Rooné) is there a want of fire-wood, which has to be carried from the last stage. Two passes have to be crossed, both under 15,000 feet, and both quite easy for laden cattle. The only obstacle presenting any difficulty is the Shigi Glacier in the Chundra valley, near Footeh Rooné—on which the enormous ever-shifting boulders of granite render frequent repairs of the road indispensable—but the entire cost of repairs from Juggutsookh to Losur, in Spiti, will be under 500 rs. per annum.

This road had not been repaired at all for eight years, and the ascent from Juggutsookh was right up the face of the hill, at a gradient impracticable for laden cattle. Portions of the road over the Hamta Pass had never been properly laid out, and were consequently difficult, if not impassable.

From Juggutsookh to Chuttroo (over the Hamta Pass) has now been laid out at a moderate gradient, and widened to about five feet, at a cost of 400 rs.; and from Chuttroo to Garsé, on this side the Koozum Pass (leading into Spiti), including the passage of the Shigri Glacier, is nearly completed, and will be open in a few days, at a cost of 300 rs.

From Garsé over the Koozum Pass, and through Spiti to the Chinese frontier, there are no difficulties of any consequence. The zemindars of Spiti are bound by the terms of settlement to keep it in order; and, as they are assessed at a rate so light as to be almost nominal, they may fairly be kept to their engagement. This year, as the road had fallen into great disrepair, they have had some assistance from convict labour, and the road is open throughout for laden cattle.

From the frontier to Gurtokh, the capital of the Chinese province of Narè Khoorsum, the only difficulty is the upper part of the Boodpo Pass; and, from the funds placed at my disposal by Government, I have engaged the zemindars of some villages in the Chinese province of Chumurthi, adjoining Spiti, in consideration of the payment of 25 rs., to put this into thorough repair. I would recommend the payment of a similar sum annually for this purpose. The details of the route from our frontier to Gurtokh are given in Appendix.

From the above brief statement, it will be seen that the route through Spiti into the heart of the shawl-wool district of Chinese Thibet, or “Chânthân,” presents facilities and advantages possessed by no other. Moreover, the people of Spiti, who are of the same origin, and speak the same language as the Thibetans, are on friendly terms with them, and carry on a considerable trade with them, chiefly by barter, exchanging their surplus grain for sheep’s wool and salt, and also disposing of ponies and yâks, and buying sheep, turquoises, and amber.

Traders from British Lahoul, Koolloo, and a few guddees from Kangra, penetrate for a short distance into Chinese Thibet to purchase shawl-wool, as do also traders from Koonawur and Bussahir. The shepherds, or rather goat-herds, only cut the fleece once in the year; and it is usual for traders to go up to the grazing grounds with grain, cloth, and other things required by the goat-herds, and to have the fleece cut on the spot where they make their bargain.

A considerable portion of the pushm taken by the Koonawur route is used up at Rampoor, the rest finds its way to Noorpoor and Umritsur; and, together with that taken through Koolloo, constitutes the entire supply which reaches those places.

The supply of shawl-wool in the provinces on our immediate frontier is inadequate to the wants of our Punjab manufacturers; and, as will be presently shown, is becoming less and less; whilst our traders cannot penetrate into the further provinces except under great disadvantages. Near Rodokh, transit duties of 10 per cent. (*ad valorem*) are levied from traders bringing wool and pushm. The Koonawur traders are exempt from these dues, in virtue of a tribute or subsidy which the Raja of Bussahir sends to Gurtokh once in three years. The emissaries of the Maharaja of Cashmeer, who is the chief buyer, are not only exempt from tax, but have their purchases carried by forced labour free of charge. He is in the habit of making large advances, and thus forestalling the supply. Private merchants, both from Ladak and from our territories, are taxed as above.

On the 8th July, I despatched Hurree-chund, son of the Negee of Lahoul, with a letter to the Garpoon (or Governor) of Gurtokh, requesting him to meet me on the frontier, and select a convenient site for a fair. I also begged him to apprehend and make over to me certain Thibetans who murdered a British subject in Ladak two years ago, and who are said to be now in the Gurtokh territory. Hurree-chund was obliged to go by the Parâng Pass from Spiti, as, in consequence of Dr. Garden's vaccine operations, the frontier Thibetans had spread a report that small-pox was raging in Spiti, and had received orders from the Gurpon to prevent the passage of any one from Spiti. His route and approximate distances are given in Appendix.

Hurree-chund rejoined me on the frontier of Spiti, August 17th, having returned by the direct route over the Boodpo Pass (see Appendix). He brought back my letter with the seal unbroken; the Garpoon stating that, on accepting office, he had sworn not to have any dealing with Europeans, and neither to receive nor answer a letter. The purport of my letter was, however, made known to him verbally, and he promised to make a search for the murderers, and to deliver them up if caught; but he declared that his country possessed nothing to trade in except the wool, and that this was already carried off yearly by the traders from Lahoul and Koonawur, almost before it could be shorn.

In support of an assertion that the supply of shawl-wool in Chinese Thibet was diminishing, I here beg to submit such particulars as I have been able to learn regarding the internal government and political state of that country. My information is derived chiefly from Hurree-chund's report of observations made by him, but confirmed in many respects by the statements of Spiti Llamas, who returned last August to their native country, after a residence of many years in Lhassa.

Chinese Thibet is known by the general name of Bhotunt; the western portion, or shawl-wool country, is called Chânthân. A native of this country is called a Boodpá, "pá" having the signification of "wâla" in Hindoostan. The seat of Supreme Government in Chinese Thibet is Lhassa, and Government there is represented by two high officials called

Umbhâns. The Chinese Government (like the Jesuits) seem to send out their representatives in couples—one acts as a check on the other; and to make an act valid, it must be signed by both of them.

The Umbhâns have political charge of the province, and dispose of more important judicial cases. Under them, at Lhasa, is a local Governor, called the “Gyalpo,” said to be a hereditary officer; and, through him, with the assistance of four subordinate officials, called Kahlôns, all collections of revenue and disbursements are effected. Under the Lhasa Government are several subordinate provinces, of which I can only name Kangree, which lies to the north of the Manosarawa Lake, and Gurtokh.

For the last two years, the Government of Lhasa has been in a very disorganized state, owing to a dispute between the Gyalpo and the Llamas of two large monasteries in the neighbourhood of Lhasa. One of these monasteries, called Séra, contains 9000, and the other, Dresoung, 6000 monks or Llamas. On some pretext or other the Gyalpo refused to pay them the usual portion of revenue, upon which the monks turned out *en masse*, took up arms, forced the Gyalpo to fly, and appointed in his place one of his subordinate Kahlôns, named Shâta. The Gyalpo, whose name is Riting Doorje Châng (Riting, the thunderbolt holder), fled to China, and laid his case before the imperial throne. Consequently two new Umbhâns were sent, with orders to despatch their two predecessors under arrest to Peking, for having permitted such a state of things to occur. This was done without resistance; and it is said that a force of 10,000 men is on its way from China to enforce order.

The western portion of Chinese Thibet, including the portion which joins the Spiti district and Koonawur, and up to the Ladak frontier on the west, is called Naré Khorsum, and is under the subordinate Government of Gurtokh, as it is called in our maps—or Gur, as it is known by the natives. This province is governed by two Garpoons (a word equivalent to the Hindoostanee Killadar, gur meaning a fort). They have a summer residence called Gur Yarsé, and a winter residence called Gur Gunsé; the latter is three marches lower down the Indus river than the former. There are only two houses at each of these places, the rest of the migratory population living in tents. Once a year, in September, there is a great fair at Gur, which is held, I believe, in the open plain between the summer and winter residence; on which occasion there is said to be a great concourse of people in tents. To this fair the Nono sent a servant with eighteen half-bred yâks; and, by the same opportunity, I forwarded for sale the toshekhanah I had taken with me, and for which there seemed no occasion in Spiti.

The province of Gur, or Gurtokh, contains five subdivisions, in each of which is a responsible officer. I only learnt the names of four of these sub-divisions, viz., 1, Tsaprazong (zong meaning a police division or thâna); 2, Dabazong; 3, Pârangzong; and, 4, Rodokhzong. The first, Tsaprazong, comprises the townships of Thotso (which immediately joins our Spiti frontier), Chumurti (celebrated for its pushm and ponies), Gugé, and Rongzhuung. Each township contains five or six villages, and is under a gôpa or headman (equivalent to the négee or chowdree of our territories).

Rodokh comprises the townships of Chakung, Rawang, Tingsté, Châbookh, and Roondur. This province appears to extend north to the Karakorum range.

A mounted post is in constant readiness, with relays of horses every few miles, to convey letters from Gur to Lhasa. Relays of bullocks or yâks are kept also at these stages to convey luggage and merchandize (for privileged individuals) and Government stores. The Garpoons are entitled to have their effects transported free of payment; and the presents interchanged between Cashmeer and Lhasa, and which are of considerable bulk (amounting, it is said, to several hundred loads), are conveyed in the same way.

The mode in which this post and bullock train is organized is as follows:—The zemindars are bound to provide the horses and yâks; but to obviate the difficulty of obtaining an effective establishment if responsibility were thus divided, a contractor is appointed, who keeps up the necessary amount of cattle, and who is responsible that no delay occurs. Towards the close of the year, he goes round to the zemindars and realizes from them the amount at which he estimates his expenses.

The mode of collecting the revenue is said to be very oppressive, especially on account of the uncertainty of the demand. It is collected in kind, but no one knows what proportion of his produce he will have to pay. The produce is chiefly live stock, the grain crop being below the wants of the population, who eagerly import grain from wherever they can get it. Lahoul, Spiti, and Koonawur, barren though they seem, all send grain into Bhotunt. The Garpoon told Hurree-chund that he levied 1 in 30, or $3\frac{1}{3}$ per cent. of live stock, *i. e.* yâks, ponies, and sheep; but the zemindars with whom he conversed invariably told him that 10 per cent. at least was taken; but there is no such thing as a fixed revenue or limited per centage of produce—it depends on the caprice of the Garpoon.

Fines are also said to be levied frequently and arbitrarily: the guilt of the person fined being less thought of than his ability to pay.

There are gold diggings in the province of Gurtokh; and a separate revenue officer, independent of the Garpoons, has charge of the gold district. His assessment is definite enough. He levies 8 rs. per head per annum from every man, no matter whether he digs for gold or not, and without reference to the success or otherwise of the digging. The tendency of these arbitrary and unequal taxes would be (one might reasonably infer) to check labour and enterprise, and diminish productiveness; and, in fact, the result is that many of the people emigrate; and Hurree-chund mentions many places where the population is only two-fifths of what it used to be. We cannot but suppose that the amount of live stock, including shawl-goats, diminishes with the population.

But, if the supply of shawl-wool is limited, and even decreasing, there are causes in operation which prevent any but a small quantity, and generally of inferior quality, reaching British territory. The influence of the Maharaja of Cashmeer, partly from old-established commercial intercourse, and partly from his generally having an imposing military force on the frontier (while hardly a British police-constable has been seen there), is quite paramount, and quite eclipses ours. As already stated, there is a large annual interchange of presents

between Cashmeer and the Viceregal Government at Lhassa, whilst the Raja of Bussahir is only permitted to exchange civilities and small presents with the subordinate Government of Gur, once in three years; and the British Government has no communication whatever with Chinese Thibet.

Thus his political relations with Thibet afford the Maharaja every facility for driving other competitors from the field; and a community of commercial interests binds the two countries still closer together to our disadvantage.

There exist, in fact, two great monopolies—the monopoly of shawls, held by the Maharaja, and the monopoly of shawl-wool, held by the Thibetans—and so they play into one another's hands. The Maharaja, of course, does not wish that any of the fine wool should reach Umritsur and Noorpoor, or he would speedily have to reduce his heavy taxes on shawl-weaving; so he sends his agents all over Chânthân, makes advances to the goat-herds, and buys up all the pushm he can. People from our territories and Koonawar certainly go into Chânthân, too; but, if they penetrate far into the pushm country, they have to pay heavy duties, whilst the agents of the Maharaja are exempt from duty, and receive every official assistance, even to having their wool carried for them free of charge; and, again, to reach British territory, they must pass either through Ladak or Bussahir, and be taxed again (for the road through Spiti has hitherto been little known and scarcely passable).

But not only does the Maharaja endeavour to monopolize the shawl-wool of Chânthân, he absolutely interdicts the passage of the shawl-wool of Yarkund through his territories; at least it is certain that such an interdict exists, though whether by order of the Maharaja, or of his thanadar at Lé, is doubtful. Small portions find their way to Lé occasionally, but none seems to reach British territory. It may seem a matter of surprise that the Maharaja should not prefer the Yarkund pushm, brought, as it were, to his door, to the present system of sending agents to Rodokh; but there appear two reasons for it,—1st, that the official assistance he receives in Chânthân enables him to compete at so vast an advantage over other buyers, and, consequently, over other weavers; 2nd, that if he supplied himself with Yarkund pushm, he could not prevent the produce of Chânthân, which would thus be left in want of a purchaser, from finding its way to Noorpoor and Umritsur; whereas, with the co-operation of the Thibetans, he can (and does) exclude the wool of Yarkund.

The Thibetans willingly join with the Maharaja to do so, because they fear that the influx of a large supply of shawl-wool from Yarkund would lower the price of their own great staple and monopoly. Indeed, it can scarcely be doubted that this would be the result, though it is probable that the demand would still equal the supply.

As the only known routes to Yarkund, except the difficult one by Cabul, are by Lé in Ladak, and across the western Karakorum range, and by Gur and Rodokh in Chinese Tartary, and over the eastern Karakorum, it is evident how completely the two monopolists have the game in their own hands.

There is a small quantity of shawl-wool produced in our provinces of Lahoul and Spiti,

but it is of no account in the trade, because in both these districts the fall of snow is so deep that goats cannot find food for themselves in the winter. The effect of this is two-fold; 1st, fodder has to be stored for the winter months, which, with the scanty population of these wild tracts, can only be done for a limited number of animals; and, 2ndly, the goats being kept up, instead of living entirely out in the snow (as in Thibet), nature does not provide them with so long a covering, and their pushm is short and inferior.

It is difficult at first sight to reconcile the apparent contentment of our shawl manufacturers with the manifest scarcity of shawl-wool. It may be remembered that, some two years ago, the Deputy Commissioner of Umritsur obtained an expression of the sentiments of the influential shawl weavers at that place, and reported to Government that there was no want of shawl-wool, and no difficulty in obtaining a sufficient supply. This assertion of the shawl weavers always seemed to me incomprehensible. It subsequently came to light that their shawls were extensively adulterated with Kirmânee wool, and their goods were extremely depreciated in the English market. Coupling this fact with the scarcity of shawl-wool (which I now consider to be determined beyond a doubt), the motives of our shawl manufacturers for their false assertion may, I think, be divined. They probably had at the time a large venture of shawl goods in England, or on its way, the success of which would have been endangered had they once admitted that the supply of shawl-wool was inadequate; or, in fact, that their wool was mixed. Moreover, knowing, as they did, the difficulties in the way of an increased supply, they might not unnaturally reflect, that, after making public the secret of their trade, and, as it were, warning purchasers that their goods were adulterated, what security or even hope had they of getting more pushm than before? Would they not have to go on using the same spurious material in their manufactures, and trying to sell them to a public which had been warned of the deception? Government doubtless wished to assist them; but would Government succeed in overthrowing the monopolies which had lasted for centuries?

I recently pressed one of the chief shawl manufacturers of Noorpoor on this subject, and he at last admitted that only the coarse or refuse wool reached them.

It seems scarcely necessary to discuss the question, "How could an additional supply of shawl-wool be obtained?" It is obvious that the only way to do so would be to open a road for the Yarkund wool. This road might either be through Lé and over the Western Karakorum Pass, overcoming the objections of the feudatory ruler of Cashmeer, and stationing a British Consul in Lé to protect our traders; or our allies, the Chinese, might be induced to open the line of road *viâ* Gur and Rodokh. There seems to be little doubt that this route is practicable, though hitherto jealously closed by the authorities of Thibet. Hurree Chund ascertained that the Karakorum range is reached in eighteen marches from Rodokh; that, though wide, these mountains are not there very high or precipitous; and, that the chief difficulty of the route is the want of supplies, which the traveller must carry with him, game alone being plentiful. On his return from Gurtokh, Hurree Chund started off again to explore this route. He had made large and expensive preparations for the journey, and hopes, if successful, to meet with the favour of Government; which, indeed, I think, he will deserve.

Should this latter route be opened, I imagine there will be little difficulty in removing any obstructions in the way of transit duties, which may now exist in Bussahir. At all events, the road through Spiti is now easily passable by loaded ponies, and presents considerable natural advantages; the passes on this line being very low and easy.

It would be premature to venture confident opinions regarding the eastern route (*viâ* Rodokh) to Yarkund. If Hurree Chund is successful, we may soon be in possession of precise information; but, even if a single traveller succeeds in traversing this route, it will be impossible for general traffic to make its way against the pertinacious obstructiveness of the Thibet officials, without a mandate from the Government of China under the imperial "Red Chop"—which should be conveyed, I think, to Gur or Lhasa by an imposing embassy.

ROUTE FROM JUGGUTSOOKH IN KOOLLOO, TO GURTOKH IN THIBET.

Name of Stage.	Number of Miles.		Remarks.
	Miles.	Fur.	
1. Juggutsookh to Chikkan .	8	6	Leave the Lahoul road about one mile from Juggutsookh; ascent to Hamta; good road; beautiful scenery. Pay coolies four annas.
2. Chuttroo . .	10	4	Cross the Hamta Pass, about 14,800 feet high, six and a quarter miles to top of pass; Chuttroo is on the banks of the Chundra, right opposite old Koksar. Pay coolies six annas.
3. Footeh Rooné	8	7	Along the river bank; road requires annual repair after the fall of avalanches in spring. Pay coolies three annas.
4. Garsé . . .	10	5	Called Kurtch by the Koolloo people; cross a moraine called Chota Shigri, and the Shigri Glacier, on which the huge boulders are constantly shifting as the ice melts; annual repairs required. Pay coolies three annas.
5. Losur . . .	11	7	Ford a rapid stream; the earlier in the day the less water; but the coolies don't like fording it till the sun is warm; ascend Kulzum Pass, three and a half miles; road easy and gradual; height about 14,700 feet. The top of the pass is the boundary between Lahoul and Spiti; descend eight miles two furlongs to Losur. Pay coolies four annas.
N. B.—The Juggutsookh coolies come all the way to Losur, as no relays can be found on the way. The charge for each man for the five marches is r. 1-4-0, which includes the carriage of <i>their</i> supplies.			
6. Kiotto . . .	10	5	Ford the Spiti river on ponies or yâks; there is a suspension bridge for foot passengers. Pay coolies three annas.
7. Khiebur . .	11	3	Cross the Zâlung torrent which leads to Roopshoo, in Ladak, on a natural bridge, formed by a limestone rock falling across it. About half way, leave the course of the Spiti river, and pass along what may be an old bed of the river. About two miles from Khiebur, cross the river which flows from Parang Pass, at the bottom of a tremendous ravine; the ascent on both sides very steep. Pay coolies three annas.
8. Kajé . . .	8	5	{ Pass the Kee monastery, 700 years old. Pay coolies three annas. Fossil Ammonites and Belemnites found in the high table land above.
9. Dhunkur . .	13	4	Pay coolies 3 annas per stage. { About four miles from Dhunkur is a suspension bridge, of twisted willow twigs, across the Spiti, leading up the Para valley, and across the Bhaba Pass into Koonawur. About a mile further on, cross the Lingti torrent, on a rough wooden bridge, ponies, &c. fording. Dhunkur is the chief place in Spiti, and there is an old fort above the village and monastery.
10. Pokh . . .	7	4	
11. Lari . . .	8	6	{ Pass Tabo monastery, two and a half miles from Lari. Pay coolies three annas. This is the last inhabited place in British territory.

Name of Stage.	Number of Miles.		Remarks.
	Miles.	Fur.	
12. Kûrig . . .	17	0	Cross the Gyoondoo torrent into Chinese Thibet. About half way is a cave, where merchants with laden cattle generally halt. Shortly before this the Para river joins the Spiti, and the road takes up the former, leaving, finally, the Spiti, which here turns abruptly to the south. A few miles further are the hot sulphur springs of Chungrazung. Just before reaching Kurig, the Para is bridged by a huge rock eighty feet long. Future distances are merely estimated.
13. Nakmocké .	17	0	
14. Nâpuk . . .	18	0	Cross two small streams and the Budhpo Pass. Pass easy, except the last 100 yards or so, which are a steep staircase.
15. Châgrachun .	10	0	This is the Bupo of Chumurthi's summer residence; there are about thirty tents. The pushm and ponies of this place are celebrated. The direct road to Rodokh, <i>viâ</i> Tashigong, turns off here.
16. Sirtee . . .	18	0	Cross a large river flowing to the Sutlej, fordable for ponies. A monastery and fort; in the latter the Bupo resides in winter; supplies procurable.
17. Ngarsa . . .	18	0	Four tents here; supplies scarce.
18. Sâra . . .	19	0	Ten or twelve tents, and supplies procurable.
19. Laôché . . .	18	0	A deep river near Lara, flowing to the Sutlej; fordable except after rain; cross a pass—easy and no snow (in August)—called Laôché-la-Kang; four tents, and supplies scarce.
20. Tangla . . .	17	0	No habitations or supplies.
21. Gar Yarsé .	10	0	Cross a low pass called Tang-Gur Jarsi; is the summer residence of the Garpoons or Governors of the province of Nari Khorsum; the winter residence, Gar Goonsé, being three marches lower down the Indus. A great fair is held in the plains between in the month of August.

Total 273 miles, traversable throughout by laden ponies and yâks.

FROM CHAGRA CHUN TO VASHIGONG, ON THE DIRECT ROUTE TO RODOKH.

1. Chumri Gomur		
2. Tabochè . . .		
3. Lurgad . . .		Below Pangroo Pass, which is three miles from the Shershung Pass of our maps.
4. Tashigong .		These marches are given from hearsay, and the distances are not known.